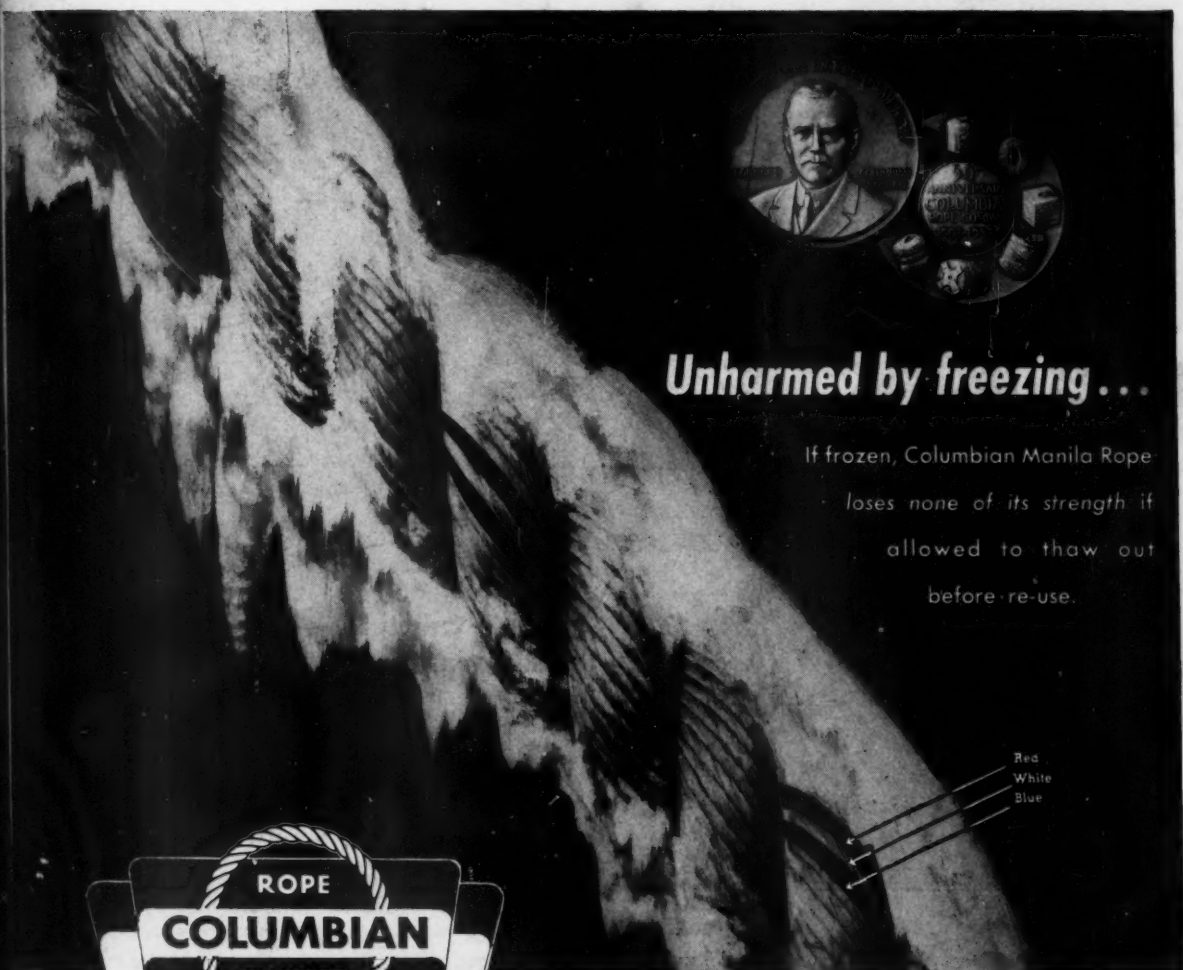


27 '889

# ATLANTIC FISHERMAN

MARCH  
1953

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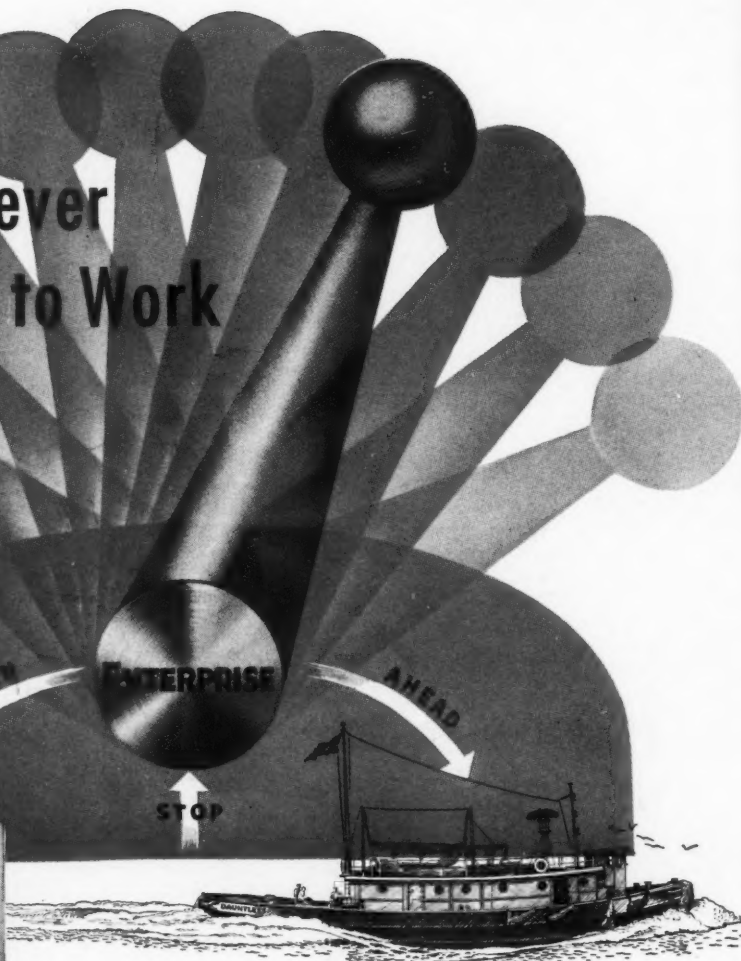


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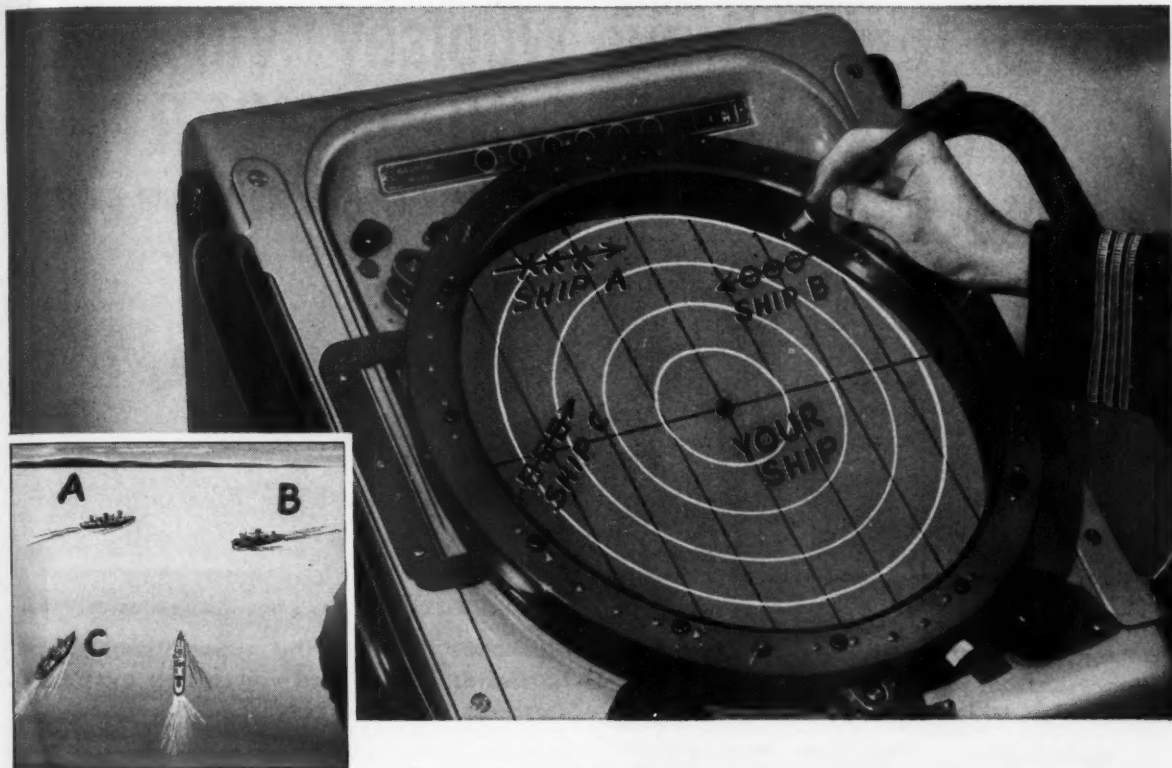


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# "Patch Tests" Prove Woolsey "Vinelist" PREVENTS FOULING LONGER

TRADE MARK

and stays smoother and sleeker than any ordinary anti-fouling bottom paint



These amazing photographs show actual performance of Woolsey "Vinelist" Anti-fouling Racing Finish under the most severe fouling conditions. The plates were painted with ordinary hull paints except for the letter "W"

which was painted with "Vinelist" and the plates were then submerged for 6 months. Plate #1 was submerged in Daytona Beach, Florida; #2 in Singapore; #3 in Newport Beach, Cal.; #4 in Rockport, Tex.; #5 in Wood's Hole, Mass.

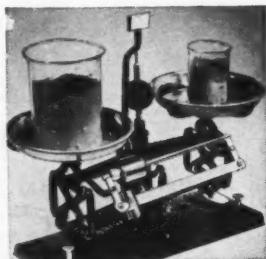
**Woolsey "Vinelist" anti-fouling racing finish, with over 4 times the copper content of ordinary bottom paints, prevents attachment of barnacles, borers and vegetation over four times longer. Gives a faster, friction-free finish . . . saves extra dockings and repaints.**

## The Facts on Anti-Fouling Paint

If you have been using ordinary anti-fouling bottom paint you know that frequent haul-outs are usually necessary because of borers, barnacles, vegetation and other marine organisms. But, as the photograph above proves, Woolsey "Vinelist" completely prevents all fouling attachments for at least six months. (We have other plates under water that have gone a full season, others that have gone 18 months without fouling—and are still going strong!) The reason for outstanding "Vinelist" performance is simple...

## Over 4 Times More Barnacle-repelling Copper Oxide

Every good anti-fouling paint releases a toxic ingredient from its surface that, in some degree, repels the attachment of marine organisms. Of all the toxicants used, copper oxide is the most effective. Obviously, the more copper oxide a paint contains, the better it will



Actual photo of the amount of barnacle-repelling copper oxide contained in 1 gallon of "Vinelist" as compared with ordinary anti-fouling paint.

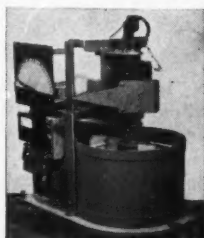
borers and vegetation up to 4 times longer than ordinary anti-fouling paints. This amazing plastic resin formulation was perfected in Woolsey Laboratories and offered by Woolsey as the first product of its kind following World War II.

## Fast, Economical, Trouble-Free!

"Vinelist" gives your boat in-

crease speed...lowers your fuel costs because there's lessened hull friction when this fast, smooth, attachment-free bottom paint is used. And remember it's lasting economy to use "Vinelist"...this extra durable finish stays fast and smooth...gives extra months of trouble-free service because it outlasts and outperforms other anti-fouling bottom finishes...you save extra dockings and repaints...gain on the extra working time that's available!

Use on Wood, Plywood, or Metal



The exclusive Woolsey Frictionometer tests skin friction, proves "Vinelist" has smoothness and slip equal or superior to a burnished, high gloss racing enamel.

On new or raw wood, including plywood, "Vinelist" is applied by spray or brush without special primer. Average coverage: 400 sq. ft. per gal. On metal hulls and metalwork, apply over Woolsey special primers. Average coverage: 450 sq. ft. per gal. Boats may be launched only 3 hours after painting. "Vinelist" retains its attractive red color while in the water.

## WOOLSEY PRODUCTS MEAN BETTER BOATING

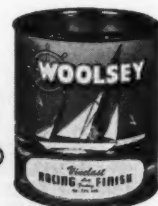
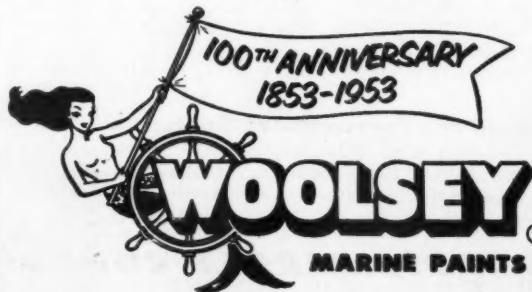
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Fume-proof because it contains no lead pigment or other ingredients subject to attack by harbor gases, exhausts, etc. Quick-drying, non-yellowing and can be repeatedly scrubbed down without harm to the finish. Retains gloss, resists chalking, remains elastic, will not crack or check. Available in Gloss, Semi-Gloss and Semi-Flat finishes.

### "TRADEWINDS" ANTI-FOULING PAINT

Moderate cost anti-fouling bottom paint for use in all waters...a favorite among fishermen for quick repaint work on wood or steel boats. "Tradewinds" is a highly toxic composition of copper and mercury toxicants in a plasticized resin binder...repels all fouling attachment including grass, resists erosion. Easily applied by brush or spray. Dries fast and hard. Choice of Rich Red or Brilliant Green.



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# Editorial

## Maintaining a Constant Supply of Fish

Increased responsibilities of the Government in promoting programs for the development and protection of fishery resources were highlighted at the Fishery Products Conference of the National Canners Association Convention in Chicago last month. A talk on this subject was delivered by Congressman Thor C. Tollefson of Washington, chairman of the Fisheries Subcommittee of the House Committee on Merchant Marine and Fisheries, who stated in part:

"When we talk about fisheries matters, we talk not only about a large industry, but also about one of our great natural resources. And while the industry aspects are important and numerous, we must at all times be aware of the fact that a constant supply of fish is necessary for the industry to operate and exist.

"Our Committee is interested in the welfare of the industry and of necessity in conserving the resource. The fisheries resources are not inexhaustible. Witness the case of the California sardine. Two years ago the pack amounted to 5 million cases. Last year it fell to a meager 75 thousand cases. The fish supply just disappeared. Where—no one seems to know. A lot of jobs both on shore and offshore are affected. So were the profits of the canners. More important still is the disappearance of a food resource.

"Perhaps the sardine will come back. We hope so. But we can't sit idly by to find out. Some investigation and research must be done. I realize that some research is already being done. But it is my feeling our Committee should make certain that every angle is explored.

"Constant attention, study and research with respect to conservation of fisheries will pay dividends. Witness the halibut fishery of the North Pacific. The halibut fishery a number of years ago seemed to face practical extinction. It had become greatly depleted—depleted to a point where it was not, from a practical business standpoint, profitable to go fishing. Now, as the result of a program of research and regulation jointly engaged in by the U. S. and Canada, the halibut fishery has been restored. The work of the International Fisheries Commission of the U. S. and Canadian Governments has paid dividends in jobs, profits and food resources.

"As a consequence of fishery depletion, our fishermen have had to go farther and farther away from our own shores to catch certain species of fish. That has been true with respect to the fishermen who have operated along almost the entire coastline of the U. S. The New England fisherman travels several days' journey from his home shores. So does the tuna fisherman of the Pacific Coast states, and the shrimp fisherman in the Gulf. Fishermen of other nations also fish in distant waters, far beyond the three-mile limit. They compete with our own fishermen for the same fishery resource. This situation has given rise to problems which did not exist in bygone years. International problems have arisen that call for the help and services of the federal government. For the North Atlantic area there is an International Commission for the Northwest Atlantic Fisheries, composed of representatives from several Atlantic nations.

"One of the bases for international negotiations is the need for conserving fishery resources of the open seas. They could be depleted by overfishing and bad fishing practices just the same as those nearer our own shores. Regulation of the fisheries must be on an international level with all interested nations participating."

It is good for the fishing industry to know that Congressman Tollefson is aware of its problems, and has constructive ideas on what should be done to protect the industry's resources. As head of the Congressional Committee concerned with fisheries matters, he should be able to render invaluable service to the industry.

# ATLANTIC FISHERMAN

REGISTERED U. S. PATENT OFFICE

Serving the Commercial Fishing Industry on Atlantic Coast, Gulf of Mexico, Great Lakes

VOL. XXXIV

MARCH 1953

NO. 2

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# South Pacific to Gloucester Run by Tuna Clipper "SUN JASON" demonstrates the Stamina of SUPERIOR Marine Diesel



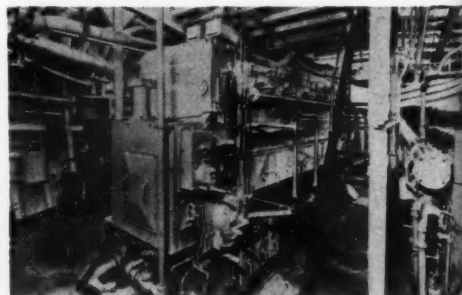
From the fishing grounds off Chile and Colombia to Gloucester, the "Sun Jason" logged 2870 miles. During 117 days at sea her 840 horsepower Superior Marine Diesel required no maintenance—even though the run from the Panama Canal to Gloucester was made in nine days, non-stop.

Captain Lazaro Massa docked at Davis Brothers Fisheries Company with 600,000 pounds of tuna—the first cargo of Pacific tuna ever unloaded at Gloucester. After 45 days of fishing the "Sun Jason" took the record-breaking cargo to Gloucester in 12 days.

Throughout the entire cruise from her home port at San Diego to the South Pacific and then to New England, the "Sun Jason's" Model "60" Supercharged Superior Diesel performed dependably and efficiently, demonstrating, once again, the kind of service that's built into Superior and Atlas Diesels.

On the Atlantic and Pacific Coasts, in the Gulf of Mexico, and in fishing waters throughout the world, you can get lots of additional proof of the efficiency and stamina of Superior and Atlas Marine Diesels. Ask your Superior-Atlas Representative or write Springfield for descriptive bulletins.

Clipper "Sun Jason" docked at Gloucester, Massachusetts, after bringing 600,000 pounds of tuna from the West Coast.



Engine Room view of the "Sun Jason" which shows her Superior Marine Diesel, Model "60."



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*when nets are  
made of*

## **BONDED NYLOCK® Nylon**

Just take one look at the above close-up photographs of two sections of netting — one made from BONDED NYLOCK Nylon and the other from UNBONDED Nylon. See the strong, tight knots in the BONDED NYLOCK net . . . see the loose, open knots in the UNBONDED net. Nylon nets have been proved to catch from 3 to 12 times as many fish. So don't take chances on losing part of this valuable haul . . . insist on nets made from BONDED NYLOCK Nylon whose tight, strong knots don't slip — won't let fish escape — keep mesh sizes constantly uniform.

In addition — NYLOCK Nylon's patented BONDED process

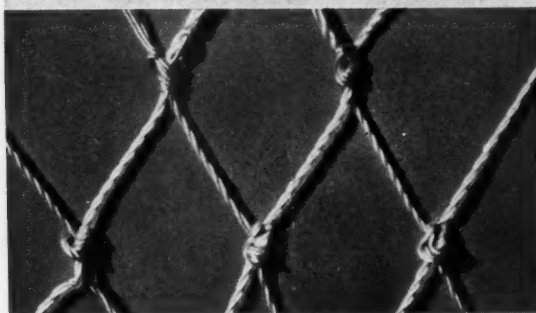
- strengthens the net — lengthens its life — reduces its stretch
- makes nets much easier to handle by absorbing less water
- practically eliminates cleaning and mending
- prevents discoloring, mildewing and rotting



Look for this tag  
on your netting. It identifies the  
genuine **BONDED NYLOCK NYLON**



Cross Section of net made of BONDED NYLOCK Nylon



Cross Section of net made of UNBONDED Nylon

- requires no preservatives — needs no drying, thus one net does the work of three
- prevents fraying or fuzziness to catch marine growth and cause net deterioration — to catch phosphorescence and warn the fish away

For further information, get in touch with one of the following manufacturers who make nets of BONDED NYLOCK NYLON Twine:

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THE FISH NET & TWINE CO., 310 Bergen Ave., Jersey City, N. J.

HOPE FISH NETTING MILLS, INC., Hope, Rhode Island

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Ask your dealer about Surrette Batteries, the choice of experts, and for Specification Sheet M-1. FINEST AT ANY PRICE—SIZES FOR EVERY BOAT. Write us if your dealer cannot supply you.

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# Surrette

## MARINE BATTERIES

## Sounding-Lead

Design and equipment of boats used for fishing will be subject of meetings to be sponsored by Food and Agriculture Organization of United Nations. One of meetings will be held in Paris October 12 to 16, and the other in Miami, Florida, November 16 to 20.

FAO has invited all member countries to send official delegates and hopes that commercial firms in all regions will send observers. Paris meeting was scheduled mainly for Europe, most of Asia and Africa, and Miami meeting for American continents and Pacific.

Designers of fishing boats and manufacturers of equipment are expected to be interested in meetings, FAO said, as many of papers and films to be presented will deal with new and improved craft and equipment of all sorts.

The agenda, the same at both meetings, will include review of different types of boats from all over world, discussions of fish handling and processing in factory ships, shape of boats, construction methods and materials, choice of engines, gear for handling nets, and arrangements for handling catch on board.

An important contribution to meetings will be made, FAO believes, by countries often considered less developed in technical fields. For example, FAO pointed out, Chile has much to offer in mechanization of sailing boats suitable for many countries of Latin America and Far East. Pakistan is the home of fishing craft which FAO experts have described as "probably having world's best hull shape" and which they believe might teach much to designers in some of most advanced countries.

**Hearing on new sardine size limit** has been promised Congressman William H. Bates of Massachusetts by Food and Drug Administration. Bates said John Harvey, associate Food and Drug Commissioner, assured him hearing will be called on receipt of formal request from industry.

Bates filed a protest against ruling by Food and Drug inspectors which provides that any sardine more than 9 in length must be branded a "herring". This ruling, Bates said, is directly contrary to conservation laws adopted by industry to protect its fisheries. "If allowed to stand," Bates said, "the ruling will result in great losses to industry by compelling fishermen to discard large fish."

**Leading fishing port** in 1952 was San Pedro, Calif., with estimated total landings of 385,000,000 lbs., valued at \$38,000,000. However, these landings were 29 percent less than in 1951. Failure of pilchard fishery in 1952 accounted for this large decrease.

Gloucester, Mass. again was in second place, with estimated landings of 222,000,000 lbs., somewhat less than in 1951 due to lighter ocean perch production. Lewes, Delaware, with 210,000,000 lbs., was in third place, replacing Boston, Mass., which dropped to fifth place in 1952. Record menhaden landings were responsible for this increase at Lewes.

Fourth place was held by Cameron, La., with 195,000,000 lbs.; fifth, Boston, Mass., 173,000,000 lbs.; sixth, Empire, La., 140,000,000 lbs.; seventh, Pascagoula, Miss., 130,000,000 lbs.; and eighth, San Diego, Calif., 110,000,000 lbs.

In 1952 other important fishery ports in approximate order of volume of landings were: Reedville, Va.; Amagansett, N. Y.; Fernandina, Fla.; Beaufort, N. C.; Tucker-ton, N. J.; Port Monmouth, N. J.; and New Bedford, Mass. Except at New Bedford, landings at these ports consisted chiefly of menhaden, which is used for production of fish meal, oil, and solubles.

Leading species landed in 1952 were: menhaden, 1,300,000,000 lbs.; salmon, 350,000,000 lbs.; tuna and tuna-like fish, 340,000,000 lbs.; shrimp, 200,000,000 lbs.; ocean perch, 189,000,000 lbs.; haddock, 165,000,000 lbs.

**Temporary draft deferments** will be allotted commercial fishermen and other skilled workers "essential to production of substantial quantities of fishery commodities", the same as are now granted farm workers. Selective Service Bulletin No. 91, which sets forth manpower policy for industry, reads in part as follows:

"Since food has its source in commercial fishing as well as in agriculture, principles relating to agricultural manpower shall be applied in classification of registrants engaged in commercial fishing industry."

**Tidelands legislation** which has been introduced to guarantee State control over oil and minerals under sub-surface of sea, has been expanded to include all natural resources within lands and waters involved. Bills by Senators Holland of Florida, Daniel of Texas, and others, define natural resources as including "without limiting the generality thereof, fish, shrimp, oysters, clams, crabs, lobsters, sponges, kelp, and other marine animal and plant life."

Other language provides that States would be entitled to claim boundaries extending into sea as existed at time State became member of union "or as heretofore or hereafter approved by Congress". This language means that any State could make claims without limitation and ask Congress to approve same.

It is believed that there may be danger in this language insofar as fishing industry is concerned, since free navigation could be interfered with, such as imposition of tolls and duties by State governments for vessels passing through their waters. Another danger lies in fact that legal precedents might be established whereby other nations might extend their limitations to sea and further complicate an already confusing picture with regard to jurisdiction over fishing waters.

**Army trawlers in Germany** have now been declared surplus to U. S. Maritime Commission, and are available to original owners. They include the *Lark*, *Josephine Ess*, *Pacific* (formerly the *Margee* and *Pat 2nd*), *Pan Trades Andros*, *Swell*, *Tern*, *Squall*, *Storm*, *Surf* and *Tide*.

The Commission is notifying original owners that they have first opportunity to purchase vessels. If former owners fail to exercise option, craft will be offered for public sale. Since trawlers are in Bremerhaven, Germany, delivery to purchasers will take place there.

**Reward for drift bottles** released on Georges Bank and Gulf of Maine area is being offered by Fish & Wildlife Service. F&WS, with cooperation of Woods Hole Oceanographic Institution, will release thousands of drift bottles from Service's research vessel *Albatross III* in an effort to determine course and speed of ocean currents in this area and consequent drift of fish eggs and larvae.

These drift bottles will be released during March, April and May, and are about the size of those used for tonics and soft drinks. Each bottle contains an orange paper and white information card. When bottle is found on shore, information card should be filled out with time and place of finding and mailed as soon as possible for \$1.00 reward. When a bottle is found at sea, it should be thrown back after the bottle number, location and time have been recorded.

Information obtained from returns of these bottles will be used with other evidence to answer following questions: What happens to billions of haddock and cod eggs spawned each Spring in Gulf of Maine and on Georges Bank? Does fish population on Georges Bank come from eggs spawned there or from some other area? Do eggs spawned on Georges Bank remain there or are they carried by surface currents to other areas before the young fish can take to the bottom? Does abundance of marketable-size fish depend on currents present when these fish were in drifting stages?

## International Net Dips Make Nets Last Longer

The cost of nets is such an appreciable part of the cost of fishing that materially prolonging the life of nets is of utmost importance to the fisherman. INTERNATIONAL NET DIPS protect nets most effectively. They come ready-to-use, require no heating nor special equipment for application, and are quick drying.



**INTERTOX NET DIP #1699** is an inexpensive homogeneous mixture with toxic properties which penetrate completely into the innermost fibres of cotton and linen netting, protecting them from the destructive action of the organisms that cause cordage rot.

**G. M. FISHING NET COPPER PAINT #1866** is higher in cost due to the anti-fouling element. Will not injure netting nor cause undue stiffness. Assures protection from fouling much longer than ordinary materials.

Write for prices and particulars about these net dips.



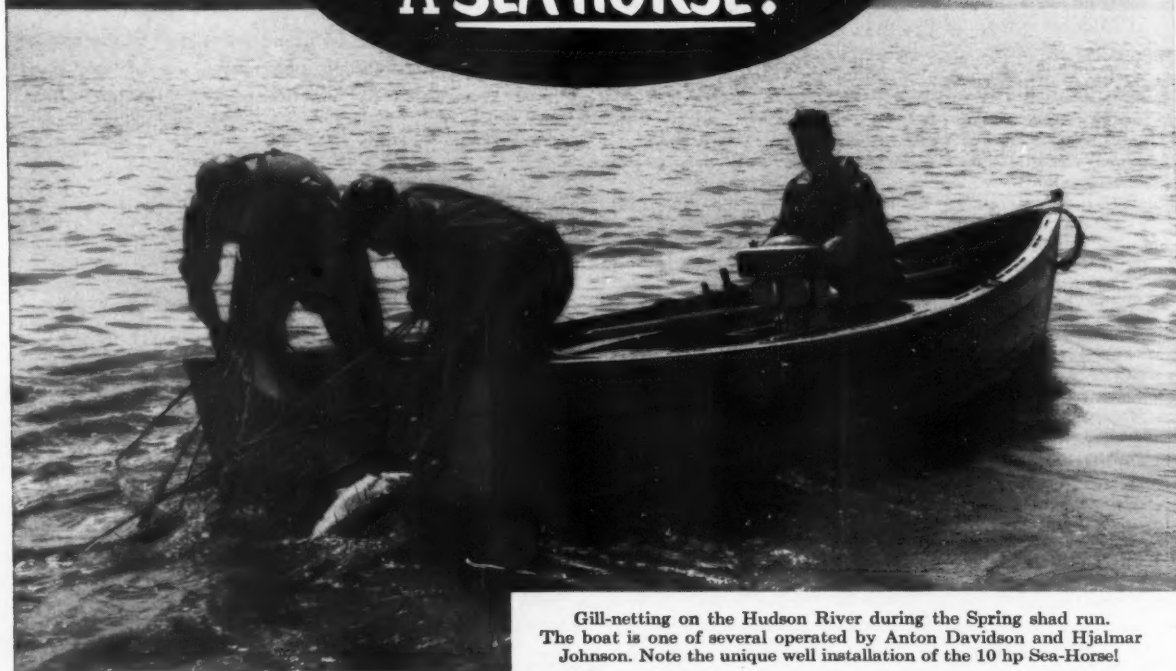
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## CUTTING COSTS WITH A SEA-HORSE!



Gill-netting on the Hudson River during the Spring shad run. The boat is one of several operated by Anton Davidson and Hjalmar Johnson. Note the unique well installation of the 10 hp Sea-Horse!



**SEA-HORSE 10** — New king-size value in outboards. Gear Shift, Mile-Master Fuel Tank, Synchro Twist-Grip Speed Control. Only **\$275.00**

Price f.o.b. factory, subject to change.

"The biggest single boon to gill netting in my memory." That's what fisherman Davidson says of the well installation of the 10 hp Johnson Sea-Horse. This is but one example of the way that these **DEPENDable** outboard motors save money and reduce work for commercial fishermen.

Unbeatable maneuverability is yours with a Sea-Horse. You can negotiate the shallowest and most obstructed waters—beach your boat anywhere.

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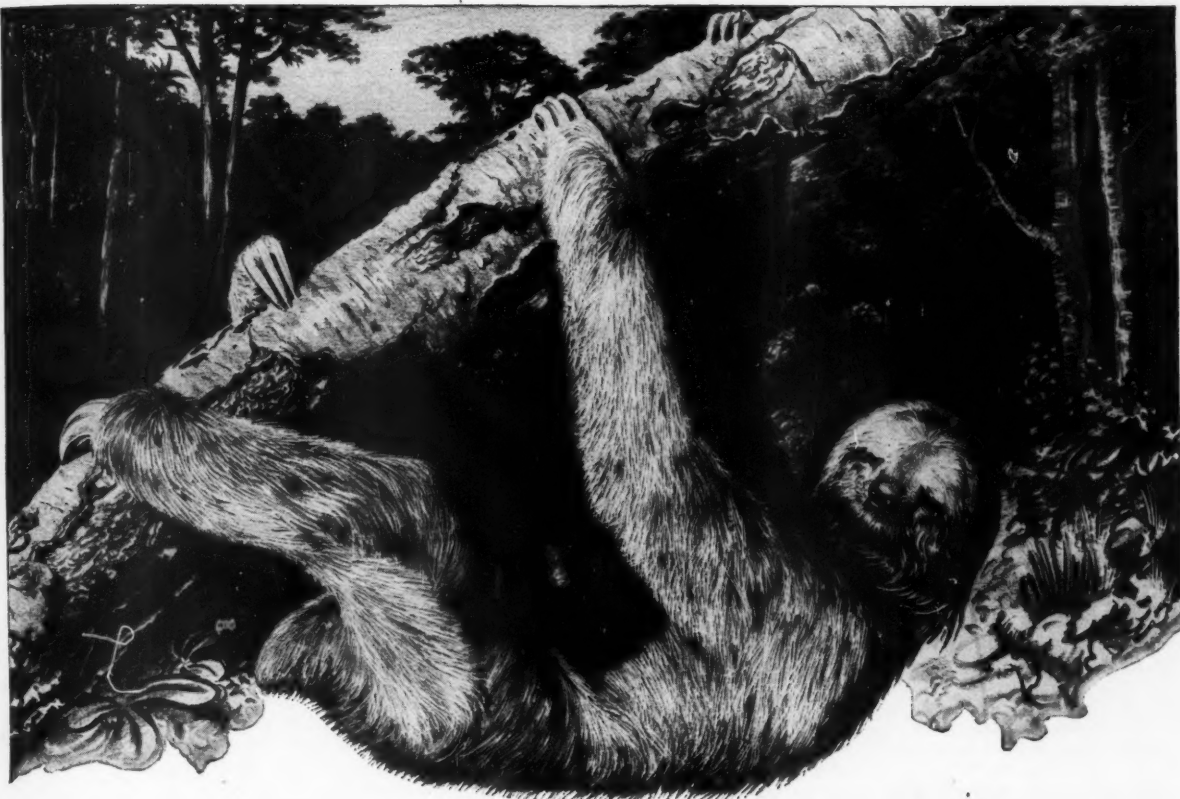
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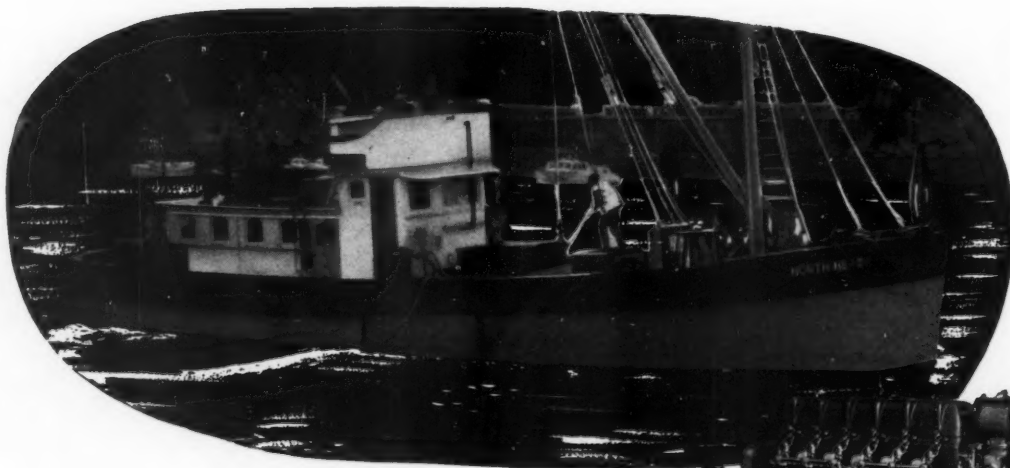


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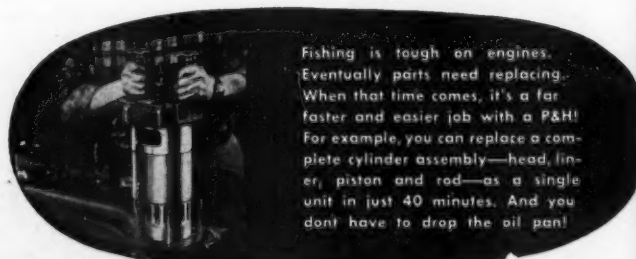
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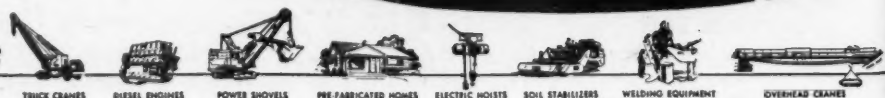
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# Minimum Mesh for Georges Bank Haddock Nets

## Regulations Formulated by International Commission for Northwest Atlantic Fisheries Designed to Allow Escape of Immature Haddock

**R**ESTRICTIONS on the size of mesh which can be used in Georges Bank haddock nets have been formulated by the International Commission for the Northwest Atlantic Fisheries, and were expected to be put into effect about March 15 by the Secretary of the Interior. These prohibit the taking of haddock in the Georges Bank area by trawl net or nets having a diagonally-stretched mesh size less than 4½" when wet. Measurement of the mesh size will be determined by taking the average of any ten consecutive meshes of the trawl net selected at the discretion of the enforcement officer and measured individually.

The regulations also ban possession or transportation on any vessel at any one time of both a trawl net or nets, parts of nets or netting, the use of which is prohibited by the regulations, and haddock in amounts in excess of 5,000 lbs. or 10 percent of all fish on board a vessel, whichever is larger. The new rules are aimed at permitting an adequate escapement of immature haddock, and will be effective during the calendar year 1953 only.

Exempted from the regulations are vessels possessing haddock in amounts less than 5,000 lbs. or 10 percent of all the fish on board, whichever is larger, taken incidentally to fishing for other species of fish; and vessels duly authorized by the director of the Fish & Wildlife Service to engage in haddock fishing for scientific purposes.

The background and the reasons for regulating the Georges Bank haddock fishery are explained in the following article by Herbert W. Graham, chief of North Atlantic Fishery Investigations for the Fish & Wildlife Service, stationed at Woods Hole, Mass.

### Haddock Support Valuable Fishery

Haddock support the most valuable fishery in New England today. The average annual landings over the last ten years have been about 150 million pounds, with an ex-vessel value of \$12,000,000. About 67 percent of this quantity is taken from the rich Georges Bank area.

The method by which these fish are taken today is very wasteful. The gear in common use for catching haddock on Georges Bank is the otter trawl. These nets are made with a small mesh which retains undersized fish. The small haddock have little or no market value and are discarded at sea in a dead or dying condition. The destruction of baby haddock is sometimes tremendous, and annually amounts to 5 million lbs. or 15 million individual fish. The fishing industry and government have been greatly concerned about this wasteful practice for many years and have repeatedly called for the protection of these young fish.

Since the fishing banks in question lie in international waters, it was not possible to bring them under regulation until the organization of the International Commission for the Northwest Atlantic Fisheries. With the activation of this body all countries fishing in the northwest Atlantic have agreed to abide by any regulations promulgated upon the recommendation of the Commission.

### Population Study

Taking small fish is generally assumed to be a wasteful practice. However, nature is sometimes so prolific that the loss of a considerable proportion of the young of a population does not seriously affect the continued abundance of the species. There is always

the possibility that man can make considerable inroads into a population without seriously jeopardizing replacement. A scientific study of the dynamics of a population is necessary before the effects of such inroads can be predicted. To make such a study it is necessary to know the fecundity of a species, the growth rate, and the mortality rates, as well as other aspects of the biology of the species.

Such a study of the Georges Bank haddock population has been made by the U. S. Fish & Wildlife Service and the results have been reviewed by the scientific advisers to the Commission. The results of these studies indicate that the Georges Bank stock probably can withstand present fishing pressure indefinitely, but that the production from this stock could be substantially increased if the smaller fish were not taken. It was found that the best age at which to begin catching these fish is three years. The present age of first capture is somewhat under 1½ years.

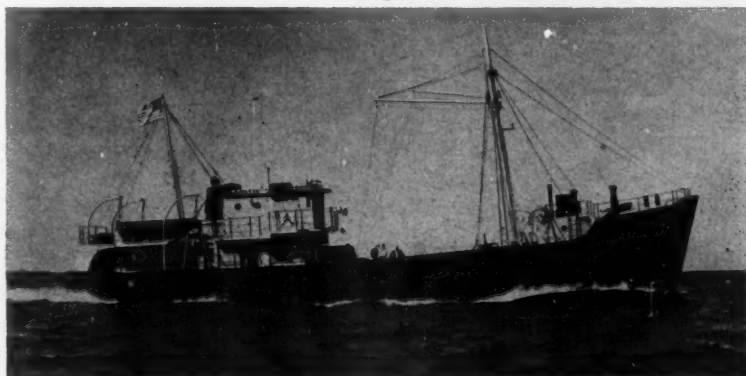
An abrupt change in age of first capture to three years would inflict a hardship on the industry, as considerable quantities of two- and three-year-old haddock are now marketed. There is at present a good market for haddock as small as 1½ lbs. Fish weighing between 1½ and 2½ lbs. are classified as "scrod" haddock and bring a lower price than fish weighing over 2½ lbs. which are classified as "large" haddock. According to an agreement among the members of the New England Fish Exchange, haddock under 1½ lbs. are not to be sold. However, fish under that size are sometimes landed, especially when there is a scarcity of larger sizes.

At the end of their second year haddock average slightly less than one pound (about 0.9 lbs.) in weight. None of these should be taken. At the end of their third year they average slightly less than 2 lbs. (about 1.9 lbs.) and all are of marketable size. It is obvious that limiting the catch to sizes over 1.9 lbs. (three-year-old fish) would lower the landings during the early phase of the regulation.

### Effect on Catch of Marketable Fish

It was the desire of the Commission that the first step in regulating the Georges Bank haddock fishery should be to require the use of a net with a mesh size which would allow a maximum proportion of unmarketable sized haddock to escape with minimal effect on the catch of marketable-sized fish. In this connection we are con-

(Continued on page 42)



The 114' Boston steel trawler "Michigan", one of the vessels which conducted experiments for the Fish & Wildlife Service to determine the size of mesh which would have an inside dimension of 4½" after use. Tests were made during normal fishing operations on Georges Bank.

# History of the Northern Oyster Industry

Gordon Sweet\* Reviews Past Happenings and Predicts Continued Growth for This 350-Year-Old Business

**T**HE eating of oysters in this country is by no means new. Oyster shell mounds, containing charcoal, stone arrow heads, and other artifacts, show that North American Indians took large quantities of oysters for food. The famous heaps on the banks of the Damariscotta River in Maine, between Damariscotta and Newcastle, contain shells of more than 170 million oysters. (Many of these animals attained a length of twelve inches and some even reached fifteen.)

In 1637 Thomas Morton wrote "there are great stores of Oysters in the entrances of all Rivers; they are not as round as those of England, but excellent fat, and all good. I have seen an Oyster bank a mile at length." Such abundance was taken by the Colonists as a symbol of the richness of the new world; oysters, a rare delicacy in Europe, could be had for the taking along New England's coast.

Oysters were consumed in ever-increasing quantities by the expanding settlements. During the 125 years from 1650 to 1775 the population of the Massachusetts Bay Colony increased from 20,000 to over 400,000. This human expansion quite naturally had an impact on the oyster resources.

## Problem of Overfishing

From 1600 to 1700 the problem of overfishing was not acute although there is evidence that it did exist. In the Bay Colony, the General Court held at Plymouth in June, 1661, laid a tax of five shillings on every barrel of oysters to be taken out of the "Gouv'ment" and in 1680 the same Court prohibited "all such as are not of our Collonie from fetching oysters from Taunton River." After 1700 signs



The "Eaglet", 45' x 15'6" x 4' oyster boat owned by Norman R. Bloom of East Norwalk, Conn., and powered with a 40 hp. Palmer gasoline engine.

from almost every coastal town indicate that oyster resources were dwindling. This becomes clear from study of the laws passed to regulate the fishing. The laws were of three general types, the "town resident" law confining oystering to local inhabitants, the "closed season" law which forbade taking this shellfish during the spawning months, and the "two bushel" law limiting the daily take per person.

These regulations were of no avail and depletion of natural beds continued at an accelerating rate. By 1800 a critical problem in conservation was developing. Oysters had become extinct in the Gulf of Maine many years earlier. They had disappeared north of Boston and were in the process of decline on Cape Cod. Only in Rhode Island and Connecticut were they taken in great quantities and along these coasts the overfishing continued unabated.

Soon after 1830 the number and size of Connecticut oysters became depressed to a point where the commercial take was insufficient to meet demand. These shellfish were opened in packing houses, the meats being put into kegs and transported all over New England. Heavy shipments were taken to Albany in wagons and continued West by canal. Fair Haven was in a strategic position to serve the thickly populated Northeast and strong pressure for a substitute supply resulted in the "importation" of oysters from New Jersey and the Chesapeake by schooner.

Traffic grew to such proportions that in 1857 a French observer reported more than 200 vessels engaged in the trade, with an estimated 2,000,000 bushels brought to local firms in that year. From this high point the volume of imports declined slowly during the next thirty years, when it ceased altogether. There are various reasons: overfishing of New Jersey and Chesapeake areas, rehabilitation



The 57' oyster boat "Peconic", left, and the 71' "Resolute", right, are owned by Sea Coast Oyster Co., New Haven, Conn., and have a capacity of 1800 bushels of oysters. They both use Socony oil. The "Peconic" is commanded by Capt. Edmond Comeau, and is powered by a 175 hp. Wolverine Diesel with 1.5:1 Snow-Nabstedt reduction gear and 48 x 32 Columbian propeller. The "Resolute's" engine is a 120 hp. Wolverine Diesel, and she is skippered by Capt. Charles L. Fidler. The oyster boat in the center is the 77' "S. S. Blackman", owned by Capt. Warren H. Critchlow of Greenport, N. Y., which can carry 3,000 bushels of oysters. She has Danforth anchor and uses Plymouth cordage.

\* H. C. Rowe & Co., New Haven, Conn.



of Connecticut stock through cultivation, and developing markets for the southern product from southern shipping points which were served by spreading networks of railroads.

### Oysters Imported from South for Planting

In addition to cargoes of southern oysters brought north in the Winter months for immediate packing and shipment, large quantities of imported stock were brought during the Spring months and planted or "laid down", in sheltered areas for use in the early Fall. Sometime after 1840 planters noticed that beds of market oysters occasionally spawned and produced a scattering of little oysters, or "spat", on the adult stock. This led to speculation about the possibility of raising crops of oysters.

An experimental planting of clean shells near mature oysters is recorded in South Norwalk, Conn. in 1847. This planting was followed by others along the New York and Connecticut coasts. Varying degrees of success were obtained with results sufficient to produce sentiment in favor of laws granting the use of land under water to individuals for oyster farming.

One of the first enabling acts was passed in 1855 by the New York Legislature. Connecticut followed in the same year with similar legislation. For some years these laws were resented by many who considered that anything taken from the sea belongs to the one who captures it.

Out of deference to this deep-seated feeling early statutes provided that no grants were to be made of "natural" oyster beds and that applicants should not receive more than two acres apiece. The latter provision was promptly evaded by the simple device of prevailing on many applicants to convey their grants to one grower. Large holdings were thus accumulated. Rapid growth of the new industry and the impossibility of conducting operations on a two-acre-per-man basis finally won public acceptance of large scale farming. The Connecticut statutes of 1875, which validated all existing titles and officially recognized holdings as constituted at the time, reflected this acceptance.

### Five Years Required to Produce Crop

Oyster propagation was found to be possible on only a small part of our coastal bottoms. Not only was it confined to beds of hard sand or gravel, but a combination of other factors was required, including fresh water from rivers and streams, warm water from tidal flats heated by the Summer sun, favorable currents, and a natural prevalence of microscopic plant food. All these environmental features played their parts in making some areas productive and highly valuable, while others, apparently suitable, yielded nothing.

Since five years are required to produce a crop of market oysters, additional areas, to which the oyster seed could be transplanted for growth and development, were therefore needed. By 1875 the industry was expanding into the open waters of Long Island Sound and thousands of acres of hard bottom at depths of 20 to 60 feet were applied for and granted. It was quickly discovered that oysters grew well in deep water and were moreover protected from the destructive wave action of line storms and Winter gales which tear shallow inshore beds to pieces almost every season.

Having procured suitable areas for propagation, growing and harvesting crops of oysters, a grower embarks on a five-year course of husbandry. Each Spring the setting beds are prepared by dredging them clean of old shells and natural enemies of little oysters. This scouring resembles the wave action of storms; it appears from the location of old natural beds and reefs that such rough treatment of the bottom is essential to successful oyster culture. Each Summer clean shells are planted on these prepared setting beds to a density of 1,000 bushels to the acre. Spawner beds of adult oysters are established in the vicinity if needed.

### Oyster Set Transplanted

The spawn is released in July and August. In a good year oyster larvae change into little oysters which are



Capt. Burt Cadorath is the skipper of the 75' oyster boat "Emily Mansfield", owned by F. Mansfield & Sons Co., New Haven, Conn. The vessel's capacity is 1800 bushels, and her equipment includes a 140 hp. Wolverine Diesel, Danforth anchor, Surrrette batteries and American Tiger Brand wire rope.

soon visible as small spots on the shells which were planted to provide them with a place of attachment. The oyster set is promptly transplanted to deep water and a year later the young creatures are growing away from the old base shells and forming shells of their own. Clusters of oysters result and these are broken apart by further transplanting. This is easy because the original "cultch" becomes soft and friable with time. During the life span, from set to market, crops must be protected from natural enemies, chief among which are starfish and boring snails known as oyster drills. Even with careful management these creatures take a heavy toll of the product.

Starting with experiments in 1847, encouraged by laws granting underwater property rights in the 1850's, the Connecticut oyster industry steadily expanded throughout the rest of the century. By 1900 a tremendous annual production of shucked oyster meats had developed in sufficient quantity to sell at moderate prices to the consuming public all over the United States and Canada.

Typical of this era was the old-fashioned oyster steamer of which there were many in Long Island Sound. The

(Continued on page 37)



A dredge loaded with oysters coming over the side of a Long Island oyster boat.

# Reorganization of Florida Fishery Laws Desirable

By Richard W. Ervin\*

**F**LORIDA has two big problems confronting it in the field of salt water conservation. One is shortage of money, and the other is the confusing state of the conservation laws. These two problems must be solved if Florida is to get on the road to an effective, practical and progressive salt water conservation program.

The Florida State Board of Conservation is charged with conserving and protecting an industry which brings in an estimated \$500,000,000 annually, yet the total operational budget of the Board has never exceeded its present \$214,000. Though the bulk of the money goes for law enforcement, the Board is weak in that department. A total of 41 conservation agents are expected to patrol and enforce 420 Florida laws on 5,000 miles of coastal and tidal waters, without the aid of airplanes and radios.

To do an adequate enforcement job, Florida should have 50% more men, well trained, well equipped, and should pay a salary that would attract qualified individuals and give them an incentive to do their best.

The Department needs more equipment, including better and faster boats. If there is a State that needs airplanes in the Conservation Department, it is the State that has the longest coast line to patrol of any State in the Union.

## Laws Are Confusing

At the present time, Florida has a total of 420 laws regulating or affecting salt water conservation. Of these, 170 are general statutes, the remainder—250 laws—are either local laws or general laws of local application.

When we consider that we have less than 20 species of marine life that are specifically regulated by law, and that out of 67 counties about 39 counties are involved directly, it is easy to see the problems with which we are faced, both in interpreting the laws and in trying to enforce them. So many local and general laws have been passed down through the years that the result has been duplication and contradiction. It is apparent that many laws were passed without knowledge of existing legislation; some, by implication, repealed portions of old laws but left confusing fragments of their predecessors in full force and effect. The result is that in some counties it is next to impossible to determine where one law leaves off and the other begins.

Many of these acts were what we call population acts. Under this system the act is written into the statutes as a general law, but is made to apply only to the county or counties within a given population bracket. The net effect is a "local law". However, in many cases counties for which the regulation was originally designed have grown out of the specified population bracket and other counties have grown into it.

In proposing a reorganization of the Florida salt water fishery laws, I firmly believe that the only way we can do an effective job is to start from the ground up and build a conservation code or set of laws and regulations that can be understood, that serves the needs of our State fisheries, based on sound conservation principles. To do this would necessitate a repeal of all our present laws, both general and special.

## Powers of Conservation Board

The Legislature has pursuant to constitutional authority created a State Board of Conservation and placed in it certain powers. Among these powers is the authority to make rules and regulations. This rule making power should be clarified. It is only natural that the Board would be reluctant to make a rule inconsistent with an act of the Legislature, although such an act may

now appear obsolete or contrary to a newly arising conservation problem.

Time, experience, scientific research and the daily accumulation of conservation and economic problems have taught us that some State agency should be clothed with sufficient authority to meet these problems as they arise without having to wait for a legislative body to convene every two years.

I feel that it is in the interest of improving our method of conservation and regulation to recommend that the Conservation Board should have authority to make the following rules and regulations and that any such rules and regulations shall be submitted to the Legislature at the next succeeding session for approval or rejection.

1. Fix the seasons when the taking of any of the fishery resources of the State is lawful or prohibited.

2. Define the areas, places and waters from which the various kinds of fish may be taken.

3. Define and fix the types and sizes of gear that may lawfully be used for each class of fish. Define and fix the times, places and manner in which it shall be lawful to possess or use same.

4. Regulate the possession, disposal and sale of all coastal species of fish within the State whether acquired within or without the State.

5. Regulate the prevention and suppression of water pollution, and all infectious, contagious, dangerous and communicable diseases and pests affecting any coastal fishery resources.

6. Fix limits by sizes, sex, numbers, and amounts of various classes of fish which may be taken, possessed, sold or otherwise disposed of.

7. Regulate the landing of the various types of fish.

8. Promulgate such other rules and regulations as may be necessary to carry out the provisions of this act.

9. Establish and maintain a system of State catch statistics with proper penalties to enforce the collection of such statistics.

10. Promulgate rules and regulations recommended by the Gulf States Marine Fisheries Commission and the

(Continued on page 41)



The "Old Glory", 55' shrimp trawler owned by Joe Sequeira of St. Augustine, Fla.

\* Excerpts from a speech presented at the recent Gulf and Caribbean Fisheries Institute at Miami Beach, Fla. Mr. Ervin is Attorney General for the State of Florida.

# Need for Changing Oil in Marine Engines

## Contamination and Deterioration Two Main Reasons Why It Should Be Changed at Regular Intervals

THE question, "Why change oil in marine engines?", is often asked of petroleum industry personnel engaged in both the manufacturing and marketing of marine petroleum products.

While all automobile owners and drivers accept the necessity and desirability of changing the engine oil in their cars, many boat owners do not understand the same need and desirability of changing engine oils applies equally as well to marine engines.

Gulf Oil Corporation scientists and technicians believe clarification of the need for changing marine engine oils will be helpful to all boat owners, and to provide this clarification, have prepared this article citing their reasons for advocating periodic changes of the oil.

Briefly, there are two main reasons why marine engine oil should be changed at regular intervals—that is contamination and deterioration of the oil itself.

Marine engines which are used infrequently may accumulate moisture in the crankcase due to "breathing." The atmosphere (air) surrounding vessels on the water is always saturated with moisture. The amount of moisture which air is capable of absorbing is proportional to the temperature of the air—i.e. the higher the temperature of the air, the more moisture it is capable of absorbing.

Daily variations in atmospheric temperatures cause an idle engine to "breathe." As the air inside the engine warms up it expands and, since the inside of the engine is vented to the atmosphere, the excess air, due to expansion, "spills out" into the surrounding atmosphere.

As the atmospheric temperature drops, air flows in the reverse direction due to contraction of the engine air. The air which is drawn into the engine by this process then drops out some of the absorbed moisture as the temperature becomes progressively lower.

This moisture condenses on the internal engine surfaces and most of it runs down into the crankcase. The moisture, together with other solid contaminants, emulsifies with the crankcase oil to form "mayonnaise sludge" when the engine is subsequently operated, unless the crankcase temperatures are high enough to vaporize the water (150°F. or higher).

### Combustion Chamber Deposits

Fuel soot and other solids from the combustion chamber contaminate the crankcase oil due to "blow-by." Even in an engine which is in good mechanical condition, it is impossible to provide a perfect seal against the entrance of deposits from the combustion chamber into the crankcase oil. Carbon deposits which are formed in the combustion chamber gradually flake off due to expansion and contraction with changes in temperature. Most of these deposits are carried out through the exhaust system, but some of them invariably find their way past the piston rings, into the crankcase. Deposits from this source are greatly increased if gasolines containing lead are used in marine engines. In this case the lead salts which are formed, comprise the major part of combustion chamber deposits and find their way into the crankcase in the same manner as outlined above.

In certain engine designs, particularly those employing raw water cooling systems, cylinder temperatures may not reach high enough levels to prevent condensation of moisture produced by combustion.

For every gallon of gasoline burned, over a gallon of water vapor is produced. Again much of this vapor is expelled through the exhaust system, but a portion of it will contaminate the crankcase oil.

Many marine engine installations employ raw water cooling systems in which sea water is circulated directly through the cooling system. Some such installations contain thermostats in a by-pass system to provide for re-



Engine room on the 59' fishing boat "Gloucester No. 10", which operates off the coast of New Brunswick, Canada. The engine is a 120 hp. Caterpillar D13000 Diesel.

circulation of a portion of this cooling water before it is dumped overboard. Others provide a manually operated valve for this purpose.

In either case, it is possible through faulty thermostats or improper operation of the manual valve to effectively cut out the by-pass system. This results in the circulation of cold sea water through the cooling system and does not permit high enough cylinder wall temperatures to prevent the condensation of a portion of the water formed by combustion. Such condensed water is scraped back into the crankcase with the excess oil film on the cylinder wall by the piston rings.

The accumulation of water in the crankcase is emulsified with the oil and solid contaminants to form a thick mass of mayonnaise-like consistency known as low temperature sludge. As long as this sludge lies stagnant in areas such as the bottom of the oil pan, it does no particular harm. However, it can be circulated throughout the lubricating system where it may be trapped in restrictions in the oil lines causing oil starvation of vital engine parts. It also can plug oil control rings causing high oil consumption, and oil pump screens causing failure of the entire lubricating system.

In addition to the low temperature sludge resulting from condensation of water, certain corrosive acids are also formed by reaction of water and certain combustion gases. These gases react with water to form acids which are corrosive to iron and steel and result in rapid corrosive wear of piston rings, cylinder walls and crankshaft journals with consequent premature oil consumption.

### Effect of Operation at High Temperatures

The above discussion has been concerned primarily with the effects of low temperature due to one type of cooling system design. Another type of cooling system design minimizes the effects of low temperature, but often

(Continued on page 49)



# Court Decisions Affecting the Fisheries

By Leo T. Parker, Attorney at Law

**T**HE legal knowledge imparted in the following article, which consists of a review of several unusually important 1952 higher court decisions involving the fishing industry, should help readers to prepare to win unavoidable law suits. Also contained in the article are answers to various legal questions asked the author on a recent trip through several States by members of the seafood industry. Questions of law having special interest to all readers are another feature.

## Discrimination Is Illegal

Modern higher courts consistently hold that all tax and license laws are unlawful and void which discriminate between resident and non-resident commercial fishermen. For illustration, in *Mulaney v. Anderson*, 72 S. Ct. 428, it was shown that the Legislature of Alaska passed a law taxing non-resident commercial fishermen \$50.00 annually, but commercial fishermen and persons who live in Alaska are required to pay a license fee of only \$5.00 annually. The Supreme Court of the United States held the law void, saying that such discrimination is unlawful, illegal and also against public policy.

## State Court Must Decide

Recently the Supreme Court of the United States held that a State court must decide whether a State law regulating fishing is valid, before a United States court has jurisdiction. For illustration, in *Shipman v. Du Pre*, 70 S. Ct. 641, one Shipman filed a suit in the United States District Court and asked for a declaratory judgment that certain laws of South Carolina regulating the fisheries and shrimping industry were unconstitutional. The District Court assumed jurisdiction, decided the issues on the merits, and dismissed the suit. This judgment was rendered although no previous South Carolina court had decided whether or not the State law was valid or unconstitutional.

The Supreme Court of the United States reversed the United States District Court's verdict, holding that first a competent court in South Carolina should decide whether or not the State fishing laws in controversy are valid. The Supreme Court said:

"From the papers submitted on appeal, it does not appear that the statutory sections in question have as yet been construed by the State courts. We are therefore of opinion that the District Court erred in disposing of the complaint on the merits."

## When Water Is Land

A reader asked this question: "In the past has a court ever decided that 'water' is 'land', and State laws specifying 'land' are applicable to water-covered land?" According to a recent higher court decision a fisherman who passes over "Posted" water may be prosecuted for trespass on "land".

For example, in *State v. Almo*, 33 So. (2d) 519, it was shown that a usual State law provides a penalty for "trespass". This law defines trespass as "the unauthorized and intentional entry upon any enclosed and posted plot of ground". In other words, the word water was not mentioned in the law.

The testimony showed that a fisherman entered a boat and paddled it on water which was over private land, and on which were "No Trespassing" signs. The property owner arrested the fisherman for violating the State trespassing law.

Although the fisherman argued that he could not be guilty of violating the law, because he had not touched the land, or "ground", the higher court held he was guilty of trespass, and said:

"Criminal trespass is declared to be the unauthorized and intentional entry upon any enclosed and posted plot

of ground. Ground can be covered with water and nonetheless be ground or land."

## In Wrong Place

A higher court laid down this law: An employee cannot recover damages from a fishing boat owner for injuries received at places on the boat where the employee is not expected to go. For example, in *Lauricalla v. United*, 185 Fed. (2d) 327, it was shown that an employee on a fishing boat fell down and was seriously injured when he was walking in the dark at a location where the boat owner had not intended or expected the employee would go. The higher court refused to hold the boat owner liable, saying:

"The ship owner owed invitees or business visitors the duty to provide a reasonably safe place in which to do their work. But that duty is confined to those parts of the ship to which the 'invitee' may reasonably be expected to go. His status as a business visitor is lost if he goes elsewhere, for he then becomes no more than a licensee or perhaps even a trespasser."

For comparison, see *United States*, 160 F. (2d) 422. In this case the boat owner was held liable to an employee who went in search of a rope in an unlighted portion of the lower deck and fell into an open hatch. The court held that it was "reasonable for the boat owner to foresee" that the employees "might have occasion to go to parts of the deck that were not lighted in pursuit of their calling."

## Fair Labor Standards Act

A reader asked this question: "Now that the new Fair Labor Standards Act has been in effect for some time, can you tell me exactly what kind of processors of fish, oysters, etc. are exempt from this minimum wage act? Please explain in detail. For example, are employees not affected by the Fair Labor Standards Act who cook, freeze or cure fish? How about employees who shell and shuck shrimp, oysters, etc.?"

Before answering this question it is well to state that Section 213 (a) (5) of the Fair Labor Standards Act as amended, exempts from the minimum-wages and maximum-hours provisions of the Act any employee engaged in the catching or cultivating of any kind of fish, shellfish, or other aquatic forms of animal and vegetable life, including packing of such products for shipment, "processing (other than canning)", marketing, freezing, curing, storing, or distributing, the above products, or by-products thereof.

(Continued on page 34)



Capt. Anders Olofsson, skipper of the 60' dragger, "Maud S. II". The boat is owned by William Pebler & Sons, Atlantic City, N. J., and is equipped with a 130 hp. Cummins Diesel and Linen Thread Co. Gold Medal twine.

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Deck view of the 63' shrimper "Lenny Boy", left, with the builder, Adolph Toche of Toche Boat Builders, Biloxi, Miss., sitting on the stern. Shown in the center are owner Herman Boda of Pensacola, Fla., left, and Toche's son. At right is another view of the trawler, which is powered with a D337 Caterpillar Diesel which turns 48 x 44 Columbian

4-blade propeller on 3" Monel shaft with Goodrich Cutless rubber bearing. Other equipment includes Stroudsburg hoist, Shipmate stove, Bendix depth recorder, Metal Marine automatic pilot and Madesco blocks. The craft will ice 30 tons; has fuel capacity of 3,000 gals.; and will hold 500 gals. of water.

## Louisiana "Inside" Shrimp Trawling Season to Reopen

The shrimp trawling season in coastal waters up to three fathoms, which closed Feb. 15, will be opened April 16. Twenty-four hour patrols to enforce the closed season on shrimp trawling in coastal waters were placed in operation February 23 by the Louisiana Wild Life and Fisheries Commission.

Violators apprehended for prosecution during the closed season will be stripped of equipment in use upon arrest for the first offense, and boats will be seized upon apprehension for the second charge. Patrols by land, sea and air of all inside waters and shrimp processing plants were being made by representatives of the Enforcement Division.

### Two Vessels Change Hands

The shrimper *Southern Belle*, formerly owned by A. F. Sauls, Jr. of Morgan City, has been purchased by Capt. Robert Tomkins. Replacing Capt. Carl "Pedro" Schultz as skipper on the *Southern Belle* is Capt. Albra Touns of Patterson, who has been in command of the *Ramos Ace*, recently sold by Ramos Shrimp Co. to Wilson Gooding of Aransas Pass, Texas. Capt. Schultz moved over to the *Little Bill*, owned by W. J. Thomas of Berwick, while awaiting completion of Mr. Sauls' new trawler at Conrad Industries.

### Shrimp Prices Increased

Effective February 1, the minimum prices of shrimp (ex-vessel) were as follows in the Morgan City area: 15-20, \$70.00; 21-25, \$65.00; 26-30, \$57.00; 31-42, \$47.00. These prices are for one barrel of 125 lbs., regardless of color.

### King New Partner of Jackson

Capt. Harold King recently became the new partner of W. D. Jackson in the purchase of the *M. A. Bowlin*, which will operate out of Morgan City, handling its production through Deep South Seafoods, Inc. Capt. King was the 1952 shrimp production champion in that area. During the year Capt. King operated three boats, the 60' *Mercedes*, the 110' ex-Navy subchaser *Rosalie* and the 70' *Progress*. His total production on these boats was 93,750 lbs.

### Order New Shrimp Trawler

Oscar Galjour and J. H. Picou have ordered a new 70' trawler from Conrad Industries, Morgan City, La., for delivery in May. Galjour now owns three boats and a half interest in three others, counting the one on order.

## Quality Control Discussed By Shrimp Association

Improved quality control is necessary in the shrimping industry if new markets are to be created and the product made more attractive to housewives, members of the Shrimp Association of the Americas were told February 2 at the Roosevelt Hotel in New Orleans. About 165 members and others interested in the shrimp business attended the three-day meeting, which opened February 1. The Association is composed of the Texas Shrimp Association and the Shrimp Association of Mexico.

Pedro Palazuelos, president of the Mexican group, asserted the shrimpers of his country want to co-operate with their neighbors in all respects, particularly in preserving shrimp grounds of the Gulf that belong neither to the United States or Mexico. He said that many in the industry were losing sight of the fact that more and more shrimp boats are being built, and suggested some steps be taken to regulate boat building to prevent the reaching of a saturation point.

Dr. E. A. Fieger, Louisiana State University professor who is working with the Association in some of its research activity, said plans call for development of a plant inspection service, setting up of a group of standards, a survey of the selling end of the industry and an educational program among shrimpers after determination of a quality control program.

Dr. Fieger said experiments showed that frozen cooked shrimp in cans keep better when not allowed to reach the air during the packing or canning process. He said shrimp packed in air become tough and develop a rancid taste, whereas shrimp packed in a diluted salt solution remain tender and keep considerably longer.

The Board of Directors of the Association approved recommendations of the Quality Control Committee, headed by Ralph MacKenzie. They included: (1) A grant to Dr. C. P. Idyll, Marine Laboratory, University of Miami, for investigating black light in determining deterioration in shrimp. (2) An educational program for boatmen, which will make use of illustrated booklets, similar to comic books, demonstrating the reasons for bacteria growth in shrimp and telling how such growth can be restricted. (3) A service for potable water inspection, which will be available to all member plants in both the United States and Mexico.

The newly-formed Marketing Committee, under the chairmanship of Robert Grandy, held a panel discussion with industry and allied members. John Mehos, chairman of the Advertising and Publicity Committee, outlined the importance of last year's promotion program to the stability of the shrimp industry.

## Great Lakes Fishermen Make Big Smelt Hauls

Green Bay ice was much safer during February than it was a month earlier, and commercial fishermen operating on Bays de Noc with gill and other nets made big hauls of lake smelt. The little silvery fish, which were the victims of a mysterious disease that practically wiped them out in 1942-43, are coming back stronger than ever. Last year the smelt invaded virtually every stream flowing into Green Bay, and explored many new streams of Lake Superior.

Commercial production of whitefish, herring, chub and suckers from Green Bay was fairly good. Carp is being taken by the ton in lower Green Bay, bringing as little as 3 and 4¢ a pound.

On Lake Superior, where commercial producers expect an early opening of the season this year because of the mild weather, lake trout catches were poor, while whitefish takes were fair. However, smelt netters, already making good yields, anticipate a successful season.

Commercial fishing on Lake Michigan was, generally, good for smelt, walleye, chub and perch. Whitefish catches, however, were light. Biggest production currently is coming from ice fishermen's nets.

Catches on Saginaw Bay and Lake Huron, generally, are ranging from fair to better. In the northern Lake Huron area and Straits of Mackinac district good yields of smelt are being made.

From Lake St. Clair, ice fishermen were getting fairly good catches of perch and pike, and consistently good hauls of carp. The carp move into shallow water and are easily taken in gill and trap nets, as well as in seine nets.

On western Lake Erie considerable ice fishing activity was under way, with catches of pike, perch, smelt, chub, sheepshead, whitefish (small), suckers, carp, and some rough fish varieties ranging about normal for this time of year. In the eastern region of the lake, however, open-water gill netters were getting fair catches of whitefish. Landings at Erie, Pa., Dunkirk, N. Y., and Port Dover, Ont. were moderate, but under good production years.

### Discuss Proposals for Fisheries Convention

Representatives of the Canadian and United States Governments met in Ottawa on February 10-12 to discuss proposals for a fisheries convention dealing with conservation and research problems of the Great Lakes. After careful consideration, it was decided that the best mode of co-operation under the present circumstances would be for Canadian and United States authorities to study the problems further and to work together to improve the yield in the Great Lakes fisheries.

### Fliers Rescue Fishermen from Ice Floe

John Thorin and Red De Grave of Escanaba, Mich. recently rescued six commercial fishermen by landing their Piper Cub planes on a runaway ice floe near Escanaba in Lake Michigan. Each pilot landed three times, taking one man and flying him back to the ice pack close to shore.

The fishermen reported that they had ventured out on the thin ice to tend to their gill nets set for smelt and herring. Suddenly they found themselves floating at about 10 miles an hour on a piece of ice which the wind had blown out into the lake.

The rescued fishermen included Robert Miller, Joseph Guay, Clement Rivard, Robert Schaffer, Edward Carlson, all of Escanaba; and Arvid Isaacscon, from Ludington. The men abandoned their fishing equipment.

### Department Approves Walleye Transfer

The Michigan Conservation Department recently gave approval to Fred A. Westerman's recommendation that the policy of netting and transferring spawning walleyes (yellow pike) at the Newaygo Dam be continued in the Spring of 1953 on the old basis of "15 days or 10,000 fish," in the Muskegon River. Mr. Westerman is head of the Conservation Department's Fish Division.



The 60' gill-netter "L. P. Hill", owned by Eugene L. Hill of Grand Haven, Mich. She has a 120 hp. Kahlenberg Diesel, D3 horn, and compressor unit for operating the net lifter. Other equipment includes Bendix depth sounder, Danforth anchor, Linen Thread Co. Gold Medal nets and Plymouth cordage.

### Dormer Has Big Herring Pack

During the recent herring run, Dormer Fish Co., which has a packing plant in Menominee, Mich., salted more than 3½ thousand 160-pound kegs of herring, and deep-froze 60 tons of this fish for buyers.

### Two Kinds of Walleyes

In the Great Lakes there are two kinds of walleyes or pike-perch. These include the common walleye (yellow pike), popularly identified by its goggle eyes, tending to a golden coloration. It often grows to immense size.

The other is actually a sauger, often referred to as a sand pike. It is a fish practically resembling its larger walleye brethren, but never reaching great size. In Wisconsin saugers are taken in commercial quantities in the Mississippi, the lower Wisconsin River, Lake Winnebago and southern Green Bay. Average length of adult saugers is about 13" and, generally, the sauger is regarded as inferior to the huskier walleye pike. Walleyes are abundant in Bays de Noc, southern Lake Michigan, Saginaw Bay, and in the western region of Lake Erie.

State fisheries men believe, because of Wisconsin's 13" minimum limit on walleyes, that fishermen are being denied an opportunity to harvest sauger. They feel, however, that if sauger had a smaller size limit provided for it, a different law enforcement problem would follow because of the difficulty in determining the difference between saugers and walleyes.

One rule to keep in mind for identification is that the walleye has a black spot at the base of its first dorsal fin, while the sauger does not. A black spot is found at the base of the pectoral fin on sauger, but is not present on the pectoral fin of the walleye. In addition, the dorsal fin of the sauger is often marked by a polka dot pattern.

### Rough Fish Catch Heavy Last Year

The rough fish harvest from Wisconsin lakes and streams last year was the best in three seasons, and the fish were sold at a fairly good price, according to the State Conservation Department. State and contract fishing crews removed slightly more than 5,000,000 lbs. of rough fish, mostly carp, from lakes and streams.

Better bunching of the creatures during the Fall fishing season and favorable weather contributed to the increased harvest, according to Lyle Dye, supervisor of the rough fish control program for the State agency. Dye estimated average prices received during the season at 4 to 5¢ a pound, considerably higher than in some past years. The receipts enabled the program to be nearly self-supporting.

State fishing crews accounted for almost 3,700,000 lbs. of the total harvest. About 84 percent of the yield was in carp of various sizes, but significant quantities of buffalo, sheepshead, eelpout and garfish also were taken.



## Texas Shrimp Landings Good in February

Shrimp landings at Texas ports were good during February. Better than average fishing weather with calm seas was the rule.

Some shrimp runs were reported along the middle and lower coast, but these were spotty. Medium trawlers were able to pick up from 500 to 2,000 lbs. of brown shrimp on a two-day trip along the 20 to 25 fathom lines, fishing at night. A few white shrimp were reported, and sizes were generally good.

The Port Isabel-Brownsville area had 5,017 barrels during February, 100 percent brown, size 15 to 21, with some 21 to 25. The Aransas Pass catch was 2,056 barrels, size 15 to 21, with some 21 to 25, 98 percent brown and remainder white. Landings in the Port Lavaca area amounted to 716 barrels, mixed sizes, 15-21 and 26-30, 94 percent brown and remainder white. The Galveston area reported 1,245 barrels, 15-21 and 26-30 count, 88 percent brown, 5 percent pink, and 7 percent white.

### Want Fishing Treaty Talks with Mexico

A Mexican demand for negotiations with the United States on a fishing treaty to establish rules and controls over the extensive shrimping grounds off the Mexican coast would be welcomed by most Texas shrimpers, according to William Estes, president and business agent of the Rio Grande Shrimpers Association, an independent union at Brownsville.

Texas shrimpers have been warned by boat owners to stay outside the Mexican territorial limits, said Estes, and also have been told that if they do not they will be subject to whatever penalties the Mexican law imposes. Estes said reports reaching Brownsville indicate that Mexican authorities have abandoned mere fines for poaching in territorial waters and now are prepared to impose jail sentences.

During February several complaints were heard from Mexico that American shrimpers, some armed with machine guns, were poaching in the Gulf of Campeche. The middle of February two Mexican Coast Guard cutters were reported to have left the Port of Campeche with orders to capture any foreign fishing boats found within nine miles of the Mexican shores.

The United States and other countries whose nationals fish off Mexico have held that territorial waters end at three miles off the Mexican coast. Mexico, however, claims a nine-mile limit which it says was established in 1935. The United States never has recognized this claim.

### Building Two Shrimpers

Workmen at Casterline Fish Co., Fulton, are building two new 50' shrimp boats. One of the trawlers is owned by Raymond Owens and the other by the Casterline Fish Co. The craft were expected to be completed about the end of March.

### Oyster Production Shows Improvement

Oyster production has shown much improvement over the last several years; more oysters are being taken, and sizes are much better.

Rouquette and Wendell of Fulton have had a very good season, and have made several shipments to California coastal cities. Prices have been fair, ranging from \$5.50 to \$6.00 per gallon.

Oyster production also is very good in the Palacios and Port Lavaca Bay area. The yield reported for February was 1,456 barrels.

### "Margaret R." Lost

The 45' trawler *Margaret R.*, owned by Capt. E. Gillette of Palacios, was pounded to pieces on Padre Island beach



The 70' x 21' x 8½' shrimper "Gulf Star", recently built by Francis Brander Shipyard, Biloxi, Miss., for Tracy Hardin and Vincent Espouse of Corpus Christi, Texas. The craft has 2" mahogany planking, cypress framing, and is powered with a 165 hp. Murphy Diesel driving 48 x 42 propeller on 3" Tobin bronze shaft with Goodrich Cutless rubber bearing. Other equipment includes Stroudsburg hoist, Surrutte batteries, Bendix depth recorder, Metal Marine automatic pilot and Columbian rope. Fuel capacity is 6,000 gals., while water storage capacity is 1200 gals.

recently. Coast Guardsmen rescued the captain and the crew, who were uninjured. Efforts will be made to salvage the shrimper's Diesel engine, which was recently installed.

### Investigate Seining in Laguna Madre

A special subcommittee of the House Game and Fish Committee wound up an on-the-spot investigation of fish seining in the Laguna Madre off Cameron County on February 21. Headed by Obie Jones of Austin, the subcommittee was augmented by eight other members of the Game Committee, and arrived at Port Isabel February 19 as guests of the two factions in the disagreement over a proposed law which would ban all netting in Laguna Madre, except for bait, as a conservation measure.

### Finfish Making Comeback

C. W. Reed, chief biologist of the Rockport Marine Laboratory operated by the Texas Game and Fish Commission, says there is positive evidence that edible finfish are making a quick comeback after the severe weather that destroyed an estimated 80 to 100 thousand tons of fish during the Winters of 1949 and 1950. An encouraging increase in trout and drum production has been noted this Winter.

Mr. Reed points out that drum and flounder were hit the hardest when the cold weather caused mud in the water to settle and clog their gills. Large trout also suffered considerably, according to Mr. Reed, who called attention to one dead trout found that measured 4' long, and several that weighed upward of 20 lbs. The larger fish suffered most in the freeze, and the smaller ones that survived are now growing into market size.

### Move into New Quarters

Reynolds Brothers, dealer in supplies for commercial fishermen, has moved into new quarters at 1415 North Water St., Corpus Christi. The new building, constructed by the company, was designed especially to house a marine business with office, shops, and store rooms.

Reynolds Brothers recently has been appointed sales and service dealer for Nordberg engines in the Texas Gulf Coast area adjacent to Corpus Christi.

Stewart and Stevenson Services, distributors of General Motors Diesels, have completed and moved into their new offices and sales rooms in Corpus Christi. R. N. Conolly is local manager.

## Maine Sardine Advertising Program in Full Swing

Half pages in color in three national women's magazines with a total circulation of close to 15,000,000, and black and white advertising copy in full column and half page size in nine other widely circulated magazines, highlighted the Lenten sales drive of the Maine sardine industry. Executive Secretary Richard E. Reed said that the color spreads were carried in the March and April issues of the *Ladies' Home Journal*, *Woman's Home Companion* and *McCall's*, while the black and white advertisements ran in *Good Housekeeping*, *Family Circle*, *Woman's Day*, *Better Living*, *American Home*, *Everywoman's*, *Better Homes and Gardens*, *Ebony* and *Tan*.

Additional promotions at their peak during the heavy seafood consuming Lenten season include extensive coverage of the home economics and public feeding fields through trade paper advertising, a three-time-a-week TV program in the New York area, heavy advertising in the grocery trade publications, retailer tie-ins, merchandising and point of sale displays.

### Trawler "Kit" Lost

The Coast Guard abandoned its search for the missing 36' Boothbay Harbor fishing trawler *Kit* and her three-man crew on February 5, after the vessel's owner, J. Wesley Sargent, identified wreckage picked up at sea as part of his craft. The *Kit* disappeared in a howling southeast storm approximately 30 miles southeast of Monhegan Island. Aboard the vessel were Cyril Peters, Jr., Oliver Newcomb, and his brother Philip, all of Boothbay Harbor.

### Urge Opening of Damariscotta River Section

Hearings held recently before the Sea and Shore Fisheries Committee on various fisheries bills were well attended by fishermen from along the coast. The bill to open the Damariscotta River as far as the Ledges to fishing was introduced by Rep. Stanley R. Tupper. Under the present law no one is allowed to catch alewives in the River, below the Damariscotta Bridge, and fishermen are not legally allowed to take other fish by purse or stop seines. They may use drag seines for fish other than alewives as far as the Ledges.

Charles York, president of the Boothbay Harbor Fishermen's Cooperative, Kenneth Fossett and Clinton Barlow, represented Boothbay Harbor region fishermen. Mr. York was emphatic in his assertions that allowing fishermen the legal right to take alewives would not hurt the industry in Damariscotta Mills. He stated that it was his



The 30' lobster boat "Bluefin" which was built for James Rankin and Joseph Russell of Falmouth Foreside Lobster Co., Falmouth, Me. by Chick, Hoff & Pendergast Boatyard, Kennebunkport, Me. She is powered with a direct drive Model K 95 hp. Chris-Craft engine.

opinion that thousands of bushels of alewives do not go the entire way up the River.

### Want Damariscove Tower Re-Activated

A petition was filed in the middle of February by Boothbay Harbor fishermen requesting that the tower on the east side of Damariscove Island be put back in full operation. The move was made primarily because of a blind area which runs 065 degrees to 160 degrees from the present lookout tower. This means that there is no lookout over the area where much fishing is done; consequently, anyone in distress would not be seen.



Capt. George Wentworth, lobster boat owner of Kennebunkport, Me.

### Warren Smelters Ask Closing of Georges River

Warren dip-net smelt fishermen met early in February and voted to ask Rep. Leroy McCluskey to present a bill to the Legislature closing to all smelt fishing during 1954 and 1955 the Georges River and its tributaries from Hoopers Point, St. George, westerly, past the northern end of Caldwell's Island to a point on the opposite shore in the town of Cushing.

Headed by Fred Baird, biologist at the Sea and Shore Fisheries laboratory at Boothbay Harbor, a discussion was held regarding the lessened catches by dip-net at Warren since 1947, the advisability of planting smelt eggs on the spawning grounds below the village dam, and cycles in the life of the smelt.

Mr. Baird pointed out that records indicated that 70,000 lbs. of smelts had been shipped from the Georges River and tributaries in 1947, and that the amounts had dwindled down to 7,000 lbs. in 1950, and 6,000 lbs. in 1951.

### Lobster Boat Being Built

Chick, Hoff & Pendergast Boatyard at Kennebunkport is building a 30' lobster boat for Robert A. Wheeler of Peabody, Mass., which is scheduled to be completed on May 1. She will have a 10' beam and will fish from Barnstable, Mass.

### Dragger Under Construction

Southwest Boat Corp. of Southwest Harbor, Maine is building a 115' dragger for Capt. Frank Rose, Jr. of Gloucester, Mass. The vessel, to be named *Judith Lee Rose*, was designed by Dwight Simpson, naval architect of Newton, Mass., and will be powered with an 8 cyl. Enterprise Diesel rated 635 hp. at 300 rpm.

### Boats Overhauled at South Portland

Fishing boats recently overhauled by Story Shipyard at South Portland include the *Geraldine & Phyllis*, which was fitted with new keel piece, shoe and rudder to repair damage done to the vessel when she ran aground recently near Boothbay Harbor. She is operated by Fulham Brothers of Portland.

Another vessel which fishes for Fulham, the 125' steel trawler *Batavia* that was brought to this country recently from Holland, had her engineer's quarters completely rebuilt, her rudder repaired, a new wheel installed and bottom painted at the Story yard. The Portland dragger *Polaris* was hauled out for painting and caulking and had her fish sheathing and deck gear repaired.

The dragger *Courier*, owned by Mid-Central Fish Co. of Portland, had several planks replaced, and the 54' dragger *Petrel*, owned by Capt. Berte Simmons of Port Clyde, had her engine reconditioned by Story.

## Gloucester Pier Extension Urged at Legislative Hearing

Gloucester fisheries leaders spoke in favor of a 560' extension to the State Fish Pier at a hearing February 19 in Boston before the Legislature's joint committee on harbors and public lands. It was announced at the hearing by Milton A. Fisher, president and treasurer of Norfolkl Fishing Co., that his concern has plans and specifications for several new large boats, to fish for ocean perch out of Gloucester. Mr. Fisher urged more dockage facilities in Gloucester to take care of these boats, which will be 140' long and will cruise at 15 to 16 miles an hour. They will carry between 300,000 and 350,000 lbs. of fish.

Senator Philip A. Graham of Hamilton declared that whereas fishermen used to get ocean perch a few miles out of the port, now they have to go off Newfoundland, taking four days to reach the fishing banks. This requires a much larger boat.

Senator Graham continued: "We have several groups in Gloucester planning to build much bigger and faster boats to get bigger and more profitable trips. One man has plans drawn for six vessels, costing \$400,000 each.

"Boats have to tie up for four days to refuel, take on provisions, and give the men needed rest between trips. Today, filleting firms are glad to have boats tie up for a day to discharge fares. Then the boats have to move, because other boats have to unload. So Gloucester must have a large pier for these idle boats. This plan will allow wharfage for 24 boats."

### "Richard J. Nunan" Founders

Capt. Paul J. Aiello and Salvatore Loiacano narrowly missed being lost at sea early in February after the 84' fishing dragger *Richard J. Nunan* opened up astern and foundered some 15 miles east of Isles of Shoals. The two men rowed for six hours before landing on Appledore Island. The *Richard J. Nunan* was owned by Lawrence Scola of Portland, Me.

### Moore Discusses Pre-Cooked Fish

Gordon Moore of Cape Ann Fisheries, Inc., spoke before the Gloucester Kiwanis Club February 19 on pre-cooked fish now being turned out in the form of fish sticks, packages of bite-size pieces of fish, portion-size pieces, and fish cakes. It was the speaker's view that this new process offers Gloucester its greatest hope of maintaining its leading position in fish production.

### Linquata New Head Fisheries Association

Capt. Leonard Linquata, owner-manager of Progressive Fish Wharf, Inc., was elected president of the Gloucester Fisheries Association at its annual meeting February 27. Capt. Linquata succeeds Eben C. Carroll, Jr., vice-president of Gorton-Pew Fisheries Co., Ltd., who has held the position for the past two years.

Other officers of the Fisheries Association are as follows: vice-presidents, Harvey H. Bundy, Jr., treasurer of Gorton-Pew Fisheries Co., Ltd., and John DelTorchio, manager of Cape Ann Fisheries, Inc.; treasurer, Ray K. Currie, assistant manager of Birdseye Division, General Foods Corp.; assistant treasurer, Ignatius J. Palumbo, manager of Empire Fish Co.; and secretary, Lawrence J. Hart.

### Gorton-Pew Handling Newton Clutches

Gorton-Pew Fisheries Co., Ltd. has been appointed distributor of Newton (formerly Kinney) interchange and dry-plate clutches in Gloucester by Newton Clutch Mfg. Co. of West Newton, Mass. A complete stock of parts will be carried in the Gorton-Pew machine shop.

### Capt. Ben Pine

Capt. Ben Pine, who was well known for his seamanship in the international fishing schooner races between Canada and the United States, passed away February 23



Capt. Sam Frontiero's new 64' whiting dragger "Carol-Jean" of Gloucester, Mass. She was built by Davis Boat Yard, McKinley, Me., and is powered with a Model D375, V-8, 270 hp. Caterpillar Diesel with Snow-Nabstedt 3:1 reduction and reverse gear, sold by Perkins-Milton Co., Inc. The boat has a Model 1352 Hathaway winch.

in his 70th year. The Captain, familiarly known to many of Gloucester's skippers and fishermen as "Piney", was born in Newfoundland in 1883, and came to Gloucester at the age of 10. For many years he went fishing out of Gloucester in the dory haddock business.

Along with other leading Gloucester business men, Capt. Pine formed the Atlantic Supply Co. in 1922. Here for many years, the firm outfitted fishing vessels, including mackerel seiners, dory haddockers, halibuters, sword-fishermen, and in later years, modern Diesel-powered draggers. Capt. Pine himself owned into many of the fishermen of the past and present.

In the international fishing schooner races, Capt. Pine skippered the *Gertrude L. Thebaud* in a series of contests with the Nova Scotian *Bluenose*, commanded by Capt. Angus Walters. Pine sailed the *Thebaud* to the nation's capital in 1933 with a delegation of Gloucester leaders aboard to plead the cause of the Gloucester fisheries to President Franklin D. Roosevelt. Later that year, he took the *Thebaud* to the World's Fair in Chicago as the Bay State's official exhibition.

## Interior Secretary McKay to Address National Fisheries Convention

The Hon. Douglas McKay, Secretary of the Interior, will give the principal address at the eighth annual convention of the National Fisheries Institute in April. About 900 members of the fishing and allied industries are expected to attend the convention, to be held at the Shoreham Hotel in Washington, D. C., April 12 through 15.

Secretary McKay is to address the convention at the general luncheon on Monday, April 13. He will be introduced by T. F. Sandoz, president of the Columbia River Packers Association, Astoria, Oregon. Another important feature of the convention is the Congressional Dinner, Sunday evening, April 12, at which Congressmen and their wives will be guests of members of the Institute.

"More Business—Come and Get It" is the theme of the Merchandising Session, scheduled for Tuesday morning, April 14. The moderator will be John Logan, president of the National Association of Food Chains. Other events include the Old Timers Annual Dinner, exhibits of fishery products, election of officers and a dinner dance.





Jim Twomey's 61' fishing boat "Ronald & Dorothy" of Point Judith, R. I. Skippered by Capt. George Thompson, the craft has a 5-man crew and is powered with a 171 hp. Buda Diesel.

## Connecticut Draggers Make Good Herring Catches

Herring landings soared over the 1,000,000-pound mark in Stonington during February despite unusually mild weather. Juliano Brothers of New Haven and Maine bought the bulk of the catch at \$17.50 per thousand pounds. Davis Bros. of Gloucester, Mass., also took a small part of the haul.

Operations centered at Longo's dock, although late in the month nearly 100,000 lbs. were landed at Bindloss dock. James Ferreira was the principal buyer there.

The good market and firm price brought out-of-port boats into Stonington. The *Alwa* of Montauk Point, N. Y., *Catherine* of Noank, and the *Mandalay* out of New London were the principal newcomers.

Shipments to New York's Fulton Market dwindled to 50,800 lbs. as all but a few draggers concentrated on the herring run. The offshore fishermen netted yellowtails, but catches were light. An estimated 10,800 lbs. were landed at Stonington during the month.

## Bills Would Regulate Scalloping

All reaches of the Mystic River, and the entire shore lines of Stonington and Groton townships, would be placed under scalloping regulations if bills introduced by Reps. David M. Johnstone of Stonington and Nelson Brown of Groton, pass the State Assembly.

The Johnstone bill takes in those Stonington waters, including the eastern half of the Mystic River, not already covered under the existing Stonington scallop law set up through a bill passed two years ago. The Brown bill is modeled on the Stonington act.

Both bills give the Town Selectmen power to license scallopers at 15¢ a bushel for daily permits or \$10 a season; to set opening and closing dates; and to limit the daily takes.

Fishermen of the two towns complained last Fall that out-of-town commercial operators were raking the rich beds in the lower reaches of the Mystic River clean by hauling out 15 to 30 bushels a day. There is no scallop limit at present, and the sole restriction prohibits dredging. The season opens Oct. 1 and closes April 1. In Stonington, the waters of Little Narragansett Bay and Stonington Harbor are protected under the existing regulation.

Opposition already has been heard regarding the proposed bills. Otto Grossman of Mystic, long-established fish dealer and former State Representative, declared the

measures penalize the non-professionals and benefit the dealers and commercial fishermen. He suggests an amendment to allow State residents to take up to one bushel a day without a permit.

## Roderick Skippering "William Chesebrough"

Capt. Sammy Roderick has taken command of John B. Bindloss' dragger *William Chesebrough* which has been tied up since her return from whiting fishing in Maine last season. She is now operating out of Stonington.

## "Weezie May" Repowered

The *Weezie May*, owned by Capt. Harold Lawry of New London, has been repowered with a Model WM-1197 Wolverine Diesel, rated 165 hp. at 1400 rpm. and equipped with 2.5:1 Snow-Nabstedt reduction gear.

## New Bedford Threatened with Strike of Seafood Workers

The New Bedford Fillet Dealers Association did not accept a revised contract submitted by Local 6, Seafood Workers Union, and the possibility of a walkout of more than 400 members of the Union became more pronounced when buyers refused to purchase fish or scallops at the New Bedford auction unless sellers agreed to make void the purchase should a strike be called.

The phrase "void if strike" is written across purchase slips, indicating any sales will be worthless if the Union carries out its threatened walkout. Contracts between the two groups expired February 9, and negotiations for another contract have been going on without progress.

## "Lauren Fay" Lands First Trip

The 78' *Lauren Fay* docked February 16 with 4,000 lbs. of scallops after her maiden voyage. The newest member of the New Bedford scallop fleet is skippered by Capt. Theodore Pedersen, and is owned by Israel Kestenbaum of New York.

## May Have Pet Food Plant

According to the Industrial Development Commission of New Bedford, the Puss and Boots Pet Food Co., an affiliate of the Quaker Oats Co., is considering a plant in New Bedford. The IDC head reported that the pet food firm would use 50,000 lbs. of fish daily in its operations, and would mean employment for 300 or 400 residents. Tests on fish landed in New Bedford have been conducted by the pet food firm and forwarded to the company's main office for further study.

## "R. Eugene Ashley" Changes Hands

Bernard M. Amero of Gloucester is the new owner of the former New Bedford dragger *R. Eugene Ashley*. Esau Levin and Ella Ostroff of New Bedford were the former owners of the craft.

## "Three Pals" Nets Plane Wreckage

Capt. Joseph Piva of the dragger *Three Pals* and his two crew members wrestled with wreckage of an airplane in about 360' of water 70 miles off Block Island early in February. The wreckage was hauled momentarily to the surface in the nets of the New Bedford dragger only to tear loose and plunge back into the sea.

## Farewell Dinner for "Legare" Skipper

A farewell dinner was given recently by the New Bedford Seafood Producers Association for Lieutenant Earle G. Hamilton, skipper of the Coast Guard cutter *Legare*, who has a new assignment. Hamilton praised the voluntary inspection of fishing vessels, and stated that ships in the port of New Bedford are in excellent condition.

Hamilton's successor is Lieutenant David R. Rondestvedt of Minneapolis, Minn.

# He Asked Permission to Stay

*Major William E. Barber, USMC*

*Medal of Honor*



IT WAS DURING the Chosin Reservoir withdrawal. Eight thousand weary marines lay besieged at Yudam-ni; three thousand more were at Hagaru-ri, preparing a breakthrough to the sea. Guarding a frozen mountain pass between them, Major Barber, with only a company, held their fate in his hands. Encirclement threatened him; he was ordered to withdraw. But he asked permission to stay, and for five zero-cold days the company held the pass against attack. The Major, badly wounded, was carried about on a stretcher to direct defense. When relief came, only eighty-four men could walk away. But Major Barber's action had been decisive in saving a division.

"I know," says Major Barber, "that you at home realize what hard jobs our sons and brothers are doing in America's armed forces. Maybe you haven't realized that you're helping those men—whenever you invest in Bonds. True, Bonds are personal financial security for you. But they also strengthen our economy—to produce the good arms and food and medical care that make our men secure."

*Peace is for the strong!*

*For Peace and Prosperity save with*

*U. S. Defense Bonds!*

**Now E Bonds pay 3%!** Now, improved Series E Bonds start paying interest after 6 months. And average 3% interest, compounded semiannually when held to maturity! Also, all maturing E Bonds automatically go on earning—at the new rate—for 10 more years. \$18.75 can pay back \$33.67. \$37.50 pays \$67.34. And so on. Today, start investing in U. S. Series E Defense Bonds through the Payroll Savings Plan at work.



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## Maryland Oystermen Are Having Good Season

Henry Trippe, District Inspector of the Department of Tidewater Fisheries, reports that oystermen are having a remarkably good season. He further stated that oysters taken from Miles River, Wye River and Eastern Bay have been large and of good quality. However, recent windy weather has hampered oystermen.

Trippe said that oyster packers are still paying \$2.25 a bushel for oysters. High price for the season was \$3 per bushel.

Tonging season closes on April 15, and the dredging season comes to a close one month sooner.

### Boats Readied for Fishing Season

Talbot County watermen have been getting ready for the Spring season, which normally opens early in March. Boats and equipment which have not been used for oystering are being overhauled and repainted.

Large catches of perch have been reported by Talbot watermen recently, and it is expected that the main net season for shad and herring will get underway earlier than usual because of the mild Winter.

Watermen also are optimistic about the crab season, as the Winter has been an "open one".

Contrary to the belief of some, veteran watermen believe crabs do not migrate from the Talbot County area. They claim crabs, both male and female, bury in the river bottoms and emerge from their Winter shelter as soon as the water warms.

### Bill Would Prohibit Somerset Oyster Leasing

Any further leasing of barren bottoms for private oyster planting in Somerset County is out, under a bill passed in the Maryland Legislature the middle of February. The measure now awaits the signature of the Governor. Somerset County already has more leased acreage than any other County in the State.

Delegate Lloyd Simpkins, who led the fight in the House for passage of the bill, called attention to the fact that about half of the leased areas are controlled by interests outside Somerset County. Of approximately 10,000 acres of oyster bottoms in the County, some 4500 are now leased to planters.

### Shad and "Civilization" Not Compatible

Deciding that "shad and civilization are not compatible," biologists at the Chesapeake Biological Laboratory at Solomons have reported after a survey that North America's shad fishing industry cannot be restored to its once-flourishing state. The report, covering both Atlantic and Pacific Coast catches, says that the national production fell from 50,000,000 lbs. in 1897 to 11,000,000 lbs. in 1949, when the catch was valued at \$1,636,000.

The four main causes for the decline are listed as stream pollution, which kills the eggs and the young fish; siltation, which destroys spawning areas and smothers the eggs; dams, which cut off favorable fresh water areas; and overfishing, which might lower the population below an effective breeding potential.

Maryland's shad catch has dropped about 25 percent in the last 70 years. A "slight upward trend" has been noted since State licensing and control measures were instituted in 1942.

Attempts to rehabilitate the fisheries by stocking streams with artificially raised fry and pond developed fingerlings appear to have failed in every instance, except when fry were introduced on the Pacific Coast, the report said. Natural catastrophes, parasites and predators are not considered important. The most recent and significant program, the report said, is a shad management plan, operating only in Maryland, which seeks to assure a greater escapement of brood stock by controlling the fishing rate. Fishermen and gear are limited by a licensing program.

## Virginia Dredgers Find Hard Crabs Scarce

Owing to the scarcity of hard crabs in the lower Chesapeake, Tangier crab dredgers have stopped operations. Some are dredging for oysters; others are tonging; and a few are digging for clams on the bars in Tyler's Creek, an extensive clam bed north of Tangier Island, immediately below the Virginia-Maryland line.

Tyler's Creek, which yields several hundred bushels of clams annually, long has been noted for its fat, succulent clams. This month clam diggers took as many as 1500 clams per day to the man. However, the daily average per man was about 800 clams.

At present parties from Maryland are trying to lease Tyler's Creek for an oyster farm. If they are successful, this clam bed would be closed to both clambers and crabbers. A committee headed by Alva Crockett, manager of the Tangier Marine Railway, plans to visit the Virginia Commissioner of Fisheries to oppose the lease.

### To Confer on Proposed Oyster Survey

Members of the Lancaster County Oystermen's Benefit Association met recently at Lancaster and appointed a committee of three men, Ernest Smith of Millenbeck, chairman, A. R. Henderson of Palmer and Marvin Stevens of Millenbeck, to confer with the Commissioner of Fisheries on a proposed oyster survey. The committee will investigate the possibility of a re-survey of the Baylor Survey and request that the Fisheries Commissioner send a representative of the Commission to the Rappahannock River to examine oyster ground before it is leased, to see that new leases are made according to law and to determine whether or not stakes denoting present leases enclose the legal acreage called for in the lease agreement.

### Oppose Rappahannock River Leases

A number of oystermen of the area met at Foxwells February 13 and pledged opposition to the leasing of 400 acres of oyster planting grounds in the lower Rappahannock River. W. F. Morgan and Cranston Morgan have filed separate applications for 250 and 150 acres of grounds near Mosquito Point.

At the meeting Tillery Schools, Lee Abbott, Jr. and Heston George were appointed to prepare and circulate petitions throughout the area. It is planned to present the petitions to the Commission of Fisheries.

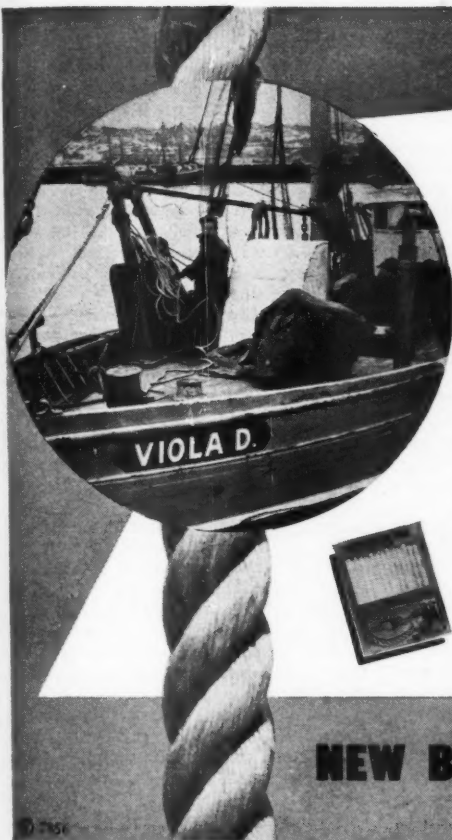
### Hampton Roads Area Landings

Totalling 3,607,900 lbs., February fish landings in the Hampton Roads area were approximately the same as in January, but showed a drop of about 250,000 lbs. from February, 1952. Sea bass landings were heaviest, amounting to 1,757,000 lbs., while scup was the runnerup, with 1,329,000 lbs.



The 43' "Nancy F.", owned by Spencer Forrest of Cambridge, Md., and presently engaged in oystering and crabbing. She has 16 x 10 Columbian propeller, and uses Gulf lubricating oil.





## On the *Viola D*

### IT'S NEW BEDFORD ROPE ALL THE WAY

Stephen Biondo, who owns the *Viola D*, has been using New Bedford Rope for three years for quarter ropes, bull rope, fish tackles, buoys, gilson rope and mooring lines. Capt. Biondo is thoroughly sold on the easy way New Bedford handles and the thoroughly dependable service it gives him.

Once you've tried it, you'll be sold on New Bedford, too. It's laid right to give long service in the roughest seas. It's fully protected against moisture and dry rot, given a special lubricant to reduce internal friction.

Ask for New Bedford Rope the next time you're fitting out. It's tops when the going's tough.

Get this useful New Bedford Chart showing the difference in breaking strength of Manila, Sisal and Nylon.

**NEW BEDFORD** CORDAGE COMPANY, NEW BEDFORD, MASS.

## Long Island's Moriches Inlet to Be Jettied

A 1,500' stone jetty is to be constructed on the west side of Moriches Inlet, off Tuthill Point. The new jetty will be built about 800' west of and parallel to a similar but shorter jetty constructed last year. The purpose of these jetties is to prevent erosion of sand, thus stabilizing the inlet's western shore.

The greater portion of the jetty will be about 60' wide at the base, tapering off to 12' across at the top. The jetty will be constructed somewhat southwest of a perpendicular to the shore.

### Explosion on Clam Boat

George Van Wyen, veteran bayman of West Sayville, escaped with singed hair and eyebrows early in February when a gasoline explosion rocked his clam boat at the Bluepoints Company dock. Mr. Van Wyen was filling up the craft's gas tank at the time of the accident. The explosion caused little damage to the interior of the boat.

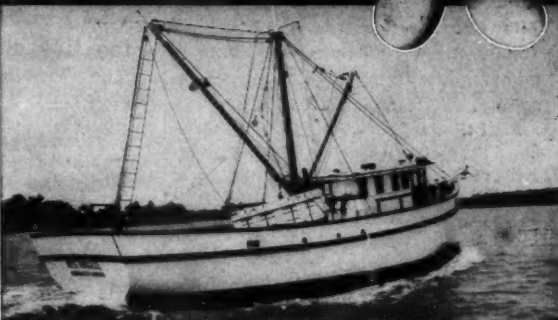
### Fishery Council Publicity

The Fishery Council of New York City and the Reynolds Metals Co. are cooperating in a campaign to encourage consumers to use aluminum foil when they cook fish. By using foil to prepare fish dishes, housewives can eliminate sticky pans, grills, odors; save dishes and, most important from the fish industry's angle, will be able to preserve moisture and flavor so important in creating tasty fish dishes.

Special material is now being prepared for distribution to newspapers, magazines, radio and TV people, and the Fishery Council is pushing the use of foil thru its TV show contacts. The Reynolds-sponsored TV show, "Mr. Peepers", and the Company's radio program, "Fibber McGee and Molly", recently featured the cooking of fish in foil.

## Columbian

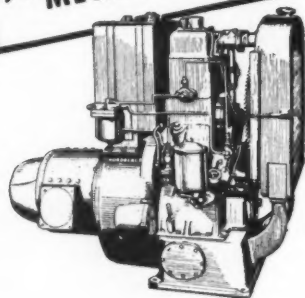
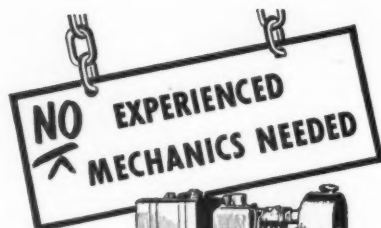
meets "Miss Voncille"



We're proud to know you, "Miss Voncille", trim and smart representative of your builder (Conrad Industries) and owner (Alvah Galloway) — both of Morgan City, La.

The pleasure will be mutual and long-lasting, judging from the experience of hundreds of your sister shrimp-trawlers which swing COLUMBIAN PROPELLERS like the 52 x 40 four-blader you carry.

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## Massachusetts Bills Would Affect Inshore Trawling

Lobster fishermen and dragger fishermen both told the Conservation Committee at a recent hearing that their businesses would be ruined if the legislators favored a bill banning beam and otter trawling year-round from Massachusetts coastal waters (according to the dragger men) or if they disapproved it (according to the lobstermen). About 250 fishermen on both sides of the dispute were present.

F. W. Sargent, Director of the State's Division of Marine Fisheries, told the Committee that his department could not make any recommendations on the problem because scientific data was lacking. "I have yet to find a scientist who says dragging does any good or any harm to the sea bottom. They do not know either," he claimed. He said proper study of the problem might cost \$50,000.

Sen. Newland H. Holmes of Weymouth, a lobsterman himself and sponsor of the proposal to ban trawling from coastal waters, said "we may not have facts to go on but we do have experience. With only one boat to enforce the law you have had 75 convictions of dragger men who were in restricted waters during the off season."

Sen. Philip A. Graham of Hamilton filed a bill authorizing use of trawling devices. He told the Committee he had filed the bill at the request of a group of Gloucester fishermen, and he knew that "during the past few years, several Gloucester fishing boats have been sunk while fishing outside that three mile limit."

### Free Use of Boat Offered

The Provincetown fishing fleet stands ready and willing to take any investigating group out to the fishing grounds entirely free of charge to further the scientific study of the fisheries industry. This offer, made by Capt. Manuel P. Dutra, president of the Provincetown Seafood Producers Association, was in answer to the suggestion of Chatham Selectman Edwin F. Eldredge that the State Division of Marine Fisheries hire a dragger for \$500 to go to the fishing grounds.

Selectman Eldredge had suggested such a trip would "give them all the knowledge they need to prohibit the use of otter and beam trawlers within the 3-mile limit all along the coast of Massachusetts." Capt. Dutra voiced an opposite point of view, claiming that such operation does not harm the grounds to the extent of closing them.

### Haddock Leading Species

In January a total of 10,200,500 lbs. of fish valued at \$870,569 was landed

at the Boston Fish Pier and sold over the New England Fish Exchange. This represented a decrease of 4% when compared to the total for December, 1952, but an increase of 3% over January, 1952, when poorer weather conditions prevailed on the fishing grounds.

Most of the fishing activity during the month took place in the Georges Bank and Channel areas, although there were a good number of trips to the Nova Scotia banks. Haddock was the leading species for the month, the first time since last April. Scrod haddock, pollock, market cod, gray sole and ocean perch followed in that order.

Supplies and demand were moderate, with a total weighted average price for the month of \$8.53 cwt., compared with \$8.33 cwt. for December, 1952, and \$11.23 cwt. for January, 1952. The market was steady throughout the month with the highest prices occurring early in the month.

The 89 trips by the large otter trawlers averaged approximately 87,000 lbs., compared with 99 trips in January, 1952, with an average catch of 71,000 lbs. The inshore fleet, however, was affected more by bad weather, with 160 trips yielding a total catch of 812,900 lbs., compared with 181 trips during January, 1952, with a total haul of 1,253,800 lbs. Pollock, market cod, and scrod haddock were the leading species landed by the inshore craft.

## New Jersey Striped Bass Season Opens

Most of the Toms River striped bass catch on the opening day of netting season was made in Cranmoor Cove. One of the busiest outfits plying its trade was the Point Pleasant Fishery, which finished the day with more than a 150-box haul, representing about 15,000 lbs. of fish. The Fishery was said to have about 50 nets licensed, with approximately 30 in operation in the cove.

The striped bass averaged between 4 and 5 lbs., although some were as large as 10 and 12 lbs. Hundreds of nets lined the River from the tip of Good Luck Point on the southernmost side, north to the tip of Bay Shore and west up the River to points off the Toms River Golf Course.

Reports from Island Heights, Pine Beach, Beachwood and Ocean Gate set the overall total of the first day's catch in the three-and-a-half mile stretch of water between 25,000 and 30,000 lbs.

The initial operations on the Cranmoor side of the River were

witnessed by several fish and game officials, as well as Dr. James Westman of Rutgers University. Dr. Westman and three associates returned the following day to set a 4" mesh net to catch those fish which go through the larger commercial nets. The smaller fish are needed in order to study next year's possibilities. The men also took scale samples to test for fungi.

### Oyster Research Funds

The State will spend \$33,398 in the fiscal year 1953-54 to study the oyster. In his budget message, Governor Driscoll allocated \$18,398 for Delaware Bay oyster research and another \$15,000 for construction of an oyster research laboratory at Rutgers University.

### Striped Bass Bill

Proponents and opponents to the limited striped bass netting bill introduced the middle of February by Assemblyman Alfred N. Beadleston of Monmouth County are reported as sharply divided among the legislators as between the sport and commercial fishermen who have been arguing the issue since 1948. However, the bill met favorable reaction on its introduction into the Assembly, passing that house with a 57 to 2 vote.

The measure, co-sponsored by Assemblyman Samuel S. Saiber of Essex County, is designed to forever remove staked gill nets from such inland waters as Barnegat Bay, Great Bay, Mullica River, Toms River and the Maurice River.

Sen. Anthony J. Cafiero of Cape May County, chairman of the Senate Game and Fisheries Committee, indicated that a public hearing will be held on the issue before any Senate action is taken.

### "Ranger" Repowered

The clam boat *Ranger*, owned by William Kleb of Snow Canning Co., Cape May, has been repowered by a Model M-150 Murphy Diesel with Twin Disc 3:1 reduction gear, sold by Marine Sales Corp., Leesburg, N. J. The engine was installed by Tony Cirincione of Tony's Marine Railway, Cape May, and the boat was built by Diesel Engine Sales Co. of St. Augustine, Fla.

### New General Motors Dealer

Griffin Equipment Corp. of New York City, regional General Motors distributor, has appointed Diesel Engineering & Equipment Co., Fords, N. J., as a factory-approved dealer with exclusive selling rights in New Jersey's Monmouth and Middlesex Counties.

The organization offers General Motors Diesel engines (30 to 845 hp.) and generator sets (15 to 200 kw.), together with stocks of factory-engineered parts and a factory-trained service division. Also carried is the Hallett Diesel line in the low horsepower range: Diesel engines of from 5 to 18 hp., and generator sets from 2½ to 10 kw.

# Here's Why You Need the AQUA-CLEAR Feeder



Throw Your  
Heat Exchanger  
Troubles Overboard



The badly rusted and corroded pipe at the left was taken from an unprotected line. The right-hand section shows how the AQUA-CLEAR Feeder keeps your entire cooling system clean as new, free from rust or salting down.

Now you can greatly lengthen the life of your engine, and cut operating costs. AQUA-CLEAR Feeders have proved so efficient on fishboats that many new boats are being equipped with them and old boats are doing away with closed cooling. The AQUA-CLEAR Feeder saves hundreds of dollars on repairs, break-downs, lay-ups, and lost time.

**Does Away with Cumbersome  
Heat Exchangers, Keel Coolers,  
Expansion Tanks, Extra Pumps, etc.**

Don't put a lot of money into complicated fresh water cooling systems—save all this expense and the extra space a closed cooling system requires. No extra holes through the hull, no complicated piping, no need to haul the boat. Makes old engines last longer, keeps new ones from ever rusting. Sizes for all engines from outboard to heaviest dragger or tuna boat, even freighters and liners.

## Cool Direct with Raw Sea Water without RUST, CORROSION, or Salting Down the Engine!

Every fisherman knows what salt water does to metal—and it ruins marine engines in short order. The AQUA-CLEAR Feeder treats all the water that goes through the cooling system so it is completely non-corrosive. Prevents salting down the engine, even under abnormal temperatures.

Easy to attach between seacock and water pump. Saves hundreds of dollars in original cost and installation—better yet, requires no maintenance. Yet with all its advantages, the AQUA-CLEAR Feeder costs less than \$75 for most engines.

**FREE** folder tells how to lengthen the life of your engine, eliminate lay-ups, save repair expense. Write for it today.

### You Take No Risk!

Use the AQUA-CLEAR Feeder on your own boat—see for yourself what it will do. We want you to be completely satisfied. Money-Back Guarantee.

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#### For Processing Plants

AQUA-CLEAR Feeders also solve even the toughest problems of salt water corrosion and rust in pipes, tanks, refrigeration lines, etc. The treated water is safe in foods and for drinking. Write for details.

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—for any commercial use!

Model B, 60 h.p.

Model K, 95 h.p.

Model M, 130 h.p.

Model W, 160 h.p.

Horsepower for horsepower, you can't buy a better marine engine for smooth, dependable operation and more years of hard service at low upkeep cost than a compact, power-packed Chris-Craft! Read what this user says:



S. Howard Minor, Jr.

"Performance of the twin Chris-Craft 95 h.p. Marine Engines in my fast, new 30-ft. Sportfisherman, *Ya-Hee*, is wonderful!" says S. Howard Minor, Jr., Vice-President and General Manager of H & M Sportfishers, Inc., San Diego, Calif. "Never have I been so well pleased during the 20 years I've owned boats! The *Ya-Hee's* compact Chris-Craft 95's have been a big factor in making an outstanding catch of 21 marlin in 38 trips for the 1952 marlin season (San Diego, Calif., area). So outstanding are Chris-Craft Marine Engines that I wouldn't hesitate to give them my unqualified recommendation for top marine performance!"

Chris-Craft Marine Engines are available in 60, 95, 105, 120, 130, 131, 145, 158 and 160 h.p. with reduction drives and opposite rotation for most models. See your Chris-Craft Dealer or mail coupon for FREE catalog today! Buy NOW!

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## Florida Shrimpers Discuss Dispute with Mexico

A group of more than 50 shrimp boat operators who met at Tampa on February 24 agreed that American shrimpers operating off the coast of Mexico should comply with all international laws. Mexico has been acting against shrimp boats it claims have been fishing its territorial waters, with four such craft recently having been seized. Mexico claims her territorial waters extend nine miles out from shore, while the United States recognizes a three-mile limit.

The Tampa meeting adopted resolutions asking the U.S. State Department to protect boats operating outside the Mexican nine-mile limit. A committee was named to ask the government to arrange for an anchorage area to be used in bad weather. Members include John Salvador, St. Augustine; Manuel Versaggi, Tampa; Frank Fant, Jacksonville; Donald Sahlman, Pensacola; and Frank Haneburger, Ft. Myers.

Captains of the seized boats *Gulf Ranger* and *Courage*, both from Brownsville, Texas, said their shrimp had been caught well outside Mexican waters. Two other American boats seized by the Mexicans were the *Mabel F. II* and the *Lois R.*, out of Ft. Myers.

Mexican fishermen have proposed that a government tax office be established, perhaps in Brownsville, Texas, so that U. S. shrimp fishermen could pay a tax on their catch in Mexican waters.

### Key West Shrimp Larger in Size

While the number of boats operating out of Key West, now estimated at slightly more than 200, is down from the 350 that fished there two years ago, the size of the shrimp being caught is slightly larger generally, it was reported. One point favoring the local activity is the fact that many of the boats which joined a mass-exodus to Fort Myers late last year are returning due to dissatisfaction with the market.

Shrimp taken from the Dry Tortugas area are running from 15 to 40 to the pound, and are bringing from 55 to 75¢ on the wholesale market. Shrimp catches have been averaging about five to six hundred pounds per night, and hauls of up to a half ton in a single evening of fishing have been reported. The boats are bringing in from 1800 to 3500 lbs. of shrimp after a five-day trip.

The weather this year is hampering local shrimping activities even more than the last squally season. Some boats are fishing only two or three nights in a week's time.

The shrimping industry has provided Key West with a healthy income since 1950, when the virgin beds were discovered. Annually, eight to nine million pounds of shrimp are shipped from Key West to northern markets.

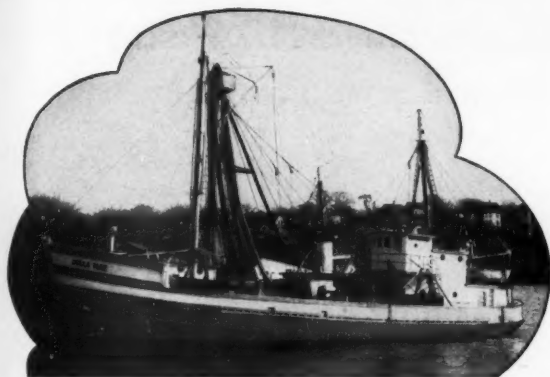
### Opposes Wide Claim to Gulf Waters

Concerned over congressional moves regarding tideland oil rights which appear to be headed towards a U.S. claim to all the northern Gulf, the Public Affairs Committee of the Pensacola Chamber of Commerce resolved to protest such action. The group planned to inform Senator Holland that such claims might result in Mexican claims to the southern half of the Gulf, thereby curtailing Florida shrimping in those waters. The Committee will suggest that the claims not extend as far out into the Gulf.

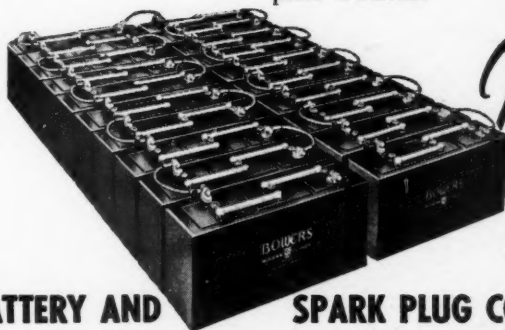
### Marine Laboratory Celebrates Tenth Birthday

The University of Miami's Marine Laboratory, which was started in an old boathouse, celebrated its 10th birthday February 1. The laboratory now has students from throughout the world, and more than \$300,000 in research contracts. Through contributions of those interested in marine research, enough money has been obtained to start construction on the first unit of a proposed new oceanside laboratory on Virginia Key.

At present, the staff of the marine laboratory includes more than 60 scientists, internationally-known experts in chemical and physical oceanography, submarine geology,



The Della Mae, 105 ft. wooden vessel, recently converted from mine sweeper to rugged fishing dragger, owned by Capt. John Francis, Gloucester. Powered with bank of 14 Bowers marine heavy duty storage batteries, operating on 112 volt system.



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marine biology, fishing biology, meteorology, design of submarine acoustic and electronic instruments, as well as some branches of marine engineering.

The laboratory does all the fishery research for the Florida State Board of Conservation. This work includes tagging, life histories and study of populations and migrations of mullet and spiny lobsters, the location of new shrimp fisheries and better methods for the handling of shrimp, as well as red tide surveys.

The laboratory also has set up a bluefin tuna research program that encompasses an area in the western Atlantic ocean from Jamaica to Nova Scotia. Another project underway is work on anti-fouling paints for boats and seaside structures.

The problem of protecting electronic equipment and other machinery, paints, ropes, nets and boat engines from salt deterioration also is being studied, as are the causes, effects and prevention of water pollution, underwater television and the fashioning of electrified nets that may some day enable commercial fishermen to catch only the kinds of fish wanted, thus doing away with loss and damage to other fish populations.

### Salt Water Fish Ruling in St. Johns

The netting of salt water fish in the St. Johns River south of Volusia Bar has been outlawed by action of the cabinet Board of Conservation. Atty. Gen. Richard Ervin told the cabinet it had authority derived from the constitution to ban the netting operations even though the rule might conflict with some present legislative acts. The ban was imposed on April 1, when the matter will be presented to the Legislature.

Conservation Director Charles Bevis said commercial fishermen have been netting shad in the fresh water portion of the River to compensate for a poor mullet season. He declared that the quality of the shad taken is poor because this is the spawning season.

Commercial netting for salt water fish below the Volusia Bar never has been a serious problem in the past be-

cause the Fresh Water Fish Commission always assumed it had police powers over all fresh waters, and that part of the St. Johns is fresh water. However, it has been learned that the Commission's power extends only over fresh water fish, and that it cannot stop the taking of salt water fish, such as shad, from fresh waters.

### Mississippi Seafood Industry Anti-Trust Probe Launched

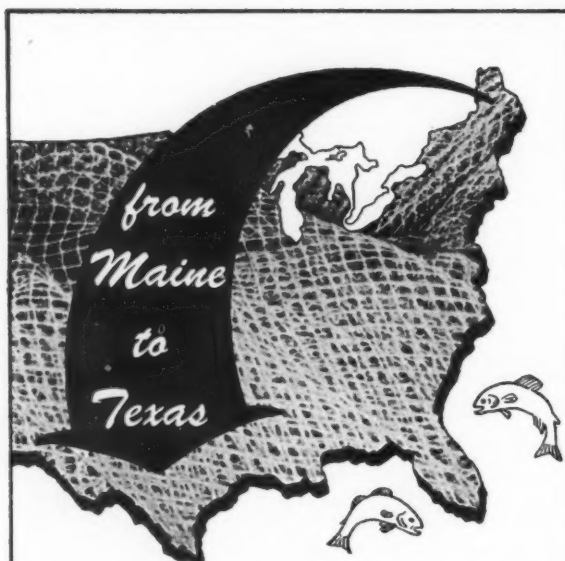
A Federal Grand Jury convened at Jackson February 24 to look into possible anti-trust violations in the seafood industry of the Mississippi Gulf Coast. A special attorney from the anti-trust division of the Justice Department in Washington, Henry M. Stuckey, said he expected the probe to continue through March 6. Indications were that the investigation would involve methods of operations by both packers and fishermen with regard to controlling supply and prices.

Among witnesses summoned to appear at the hearings were leading seafood packers at Biloxi, union leaders and others connected with the industry.

### Dr. Hopkins Describes Oyster Enemies

Three enemies of the oyster were described to the Gulfport Kiwanis Club February 18 by Dr. A. E. Hopkins of the marine research laboratory at Ocean Springs. Dr. Hopkins pointed out that brackish water is not only helpful to oysters, but also is destructive to many of the oyster's enemies. Too much fresh water, however, also kills the oysters, he said.

Dr. Hopkins declared that the largest number of small oysters attach themselves to the bottom of the planted shells. If the ocean floor is muddy the small oysters cannot get on the bottom side of the shells and the yield is thereby reduced considerably.

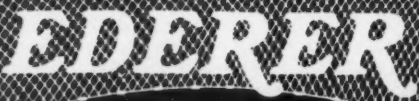


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## Rhode Island Bill Would Allow Trawling in Bay

The Senate Fisheries Committee on February 27 reported out with recommendation of passage a bill which would bring fishing trawlers back into Narragansett Bay. The trawling area proposed in the bill in the West Passage is substantially larger than the area assigned to the trawlers prior to last year when the Legislature failed to renew trawling privileges.

The measure would permit trawling after May 1, 1953, in the lower Bay south of a line running from Quonset Point, North Kingstown, to the northerly end of Hope Island, to Pine Hill bend, Prudence Island, in the West Passage; and from the southerly end of Prudence Island to Dyer Island and directly easterly to the Portsmouth shore in the East Passage. Trawling also would be permitted in the Sakonnet River south of a line from McCurry's Point, Portsmouth, to Fogland Point, Tiverton.

## Would Restrict Taking of Striped Bass

A measure to restrict the taking of striped bass in Rhode Island waters during a five-month period was introduced in the State Legislature February 6 by Senators Raymond A. McCabe, Providence.

The bill would provide that from June 1 to October 31, inclusive, striped bass could be taken only by hook and line from waters within three nautical miles of the Rhode Island coast line. Striped bass accidentally taken aboard a boat or on the shore by net or trap would have to be returned to the water.

## Bill Would Strengthen Ban on Polluted Waters

The bill to strengthen the law prohibiting shellfishing in polluted water was half-way through the legislature February 27. Drawn to plug holes in the law through which certain fishermen have escaped penalties for violations, the bill passed the House after two unsuccessful attempts to amend it.

As it stands now the bill would grant the State Director of Health authority to designate wardens of the Division of Fish and Game as his enforcement agents. Lack of such authority has been the weak spot in the law.

Other provisions of the bill sharply increase penalties for violations, permit the Director of Health or his agents to enter packing plants or vessels to make inspections, authorize the seizure of vessels and equipment of persons arrested for shellfishing in polluted waters, and grant discretionary power to the Health Director to refuse to issue a license to any person convicted of a violation.

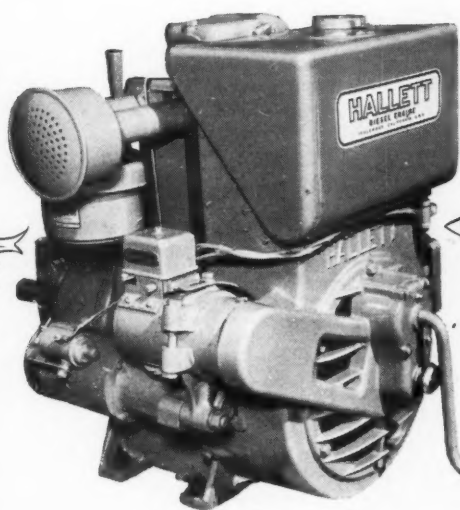
## Court Decisions

(Continued from page 20)

A review of late higher court decisions discloses that the word "processing", as used in the exempting clause, includes a series of acts, events, and occurrences, which are necessary to transform raw seafood into an edible commercial product. In other words the Federal statute excludes from the minimum-wages and maximum-hours provisions of the Act every one of the acts and progressive steps, except canning, included in the term "processing".

However, employees engaged in "canning" fish, oysters and like products are within the provisions of the Fair Labor Standards Act and, therefore, must be paid wages specified by this law. The higher courts lately have laid down law to the effect that "canning" includes hermetically sealing, and sterilizing or pasteurizing, and every other operation necessarily performed on the products before they are placed in cans, bottles, or other containers to be hermetically sealed, as well as the actual placing of the commodities in such containers; also included are subsequent operations such as the labeling of the cans or other containers, and the placing of the sealed containers in cases or boxes. On the other hand





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every other act or step in catching, curing, marketing, and distributing aquatic products is embraced in the exemption clause, except only those especially performed upon the products for the purpose of canning.

In other words, catching, freezing, curing, shelling, or shucking, shrimp or oysters, constitutes no part of the canning process. Hence, employees engaged in these activities are exempt from the Fair Labor Standards Act.

For example, in *Donnelly v. Mavar Shrimp & Oyster Company, Inc.* 190 Fed. (2d) 409, the testimony showed facts as follows: A company is engaged in the commercial canning of shrimp and of oysters, as well as in their taking and harvesting, cleaning and processing. The question presented this court was: Are shuckers of oysters and cleaners of shrimp exempt wholly instead of partially from the Wage and Hour Law? The court held in the affirmative and stated broad law, as follows:

"The statute recognizes that, in obtaining and offering shrimp and oysters for sale for use as food, it is necessary to cultivate them, catch, cure, freeze, pack, can, or otherwise transform, them into a marketable product. Section 213 (a) (5) left the exemption intact as to every other distinct act and feature of the industry that was necessary to convert the raw material of aquatic life into a marketable product. As used in the statute, processing is an inclusive word that embraces all the acts necessary to improve the material and convert it into an edible product."

Therefore, it seems that this court broadly held that all employees not working in a "canning" room are exempt from the Fair Labor Standards Act.

### City Has Authority

Recently a higher court held that a city ordinance is valid which provides that no person should take shellfish from shores, flats or waters within the city without first obtaining a permit therefor from the Board of License Commissioners of the city. This is so although the Metro-

politan District Commission has powers to regulate use of property under its care.

For example, in *Commonwealth v. Bragg*, 103 N. E. (2d) 413, the testimony showed facts as follows: It was alleged that one Bragg "did take shellfish, to wit: clams, from the shores, flats or waters within the City of Quincy without first obtaining a permit therefor from the Board of License Commissioners of the City" in violation of a city ordinance. Further testimony showed that Bragg dug clams from a bed which is both within the Quincy Shore Reservation of the Metropolitan District Commission, and within the geographical limits of the city of Quincy. At the time Bragg had a permit from the Metropolitan Commission to dig clams in that bed. He also had a certificate from the Division of Marine Fisheries of the Department of Conservation to the effect that clams in that bed were uncontaminated.

A city ordinance provides: "No person shall take shellfish from the shores, flats or waters within the City of Quincy without first obtaining a permit therefor from the Board of License Commissioners of the City of Quincy." At the time Bragg took the clams from the area he had no permit to do so from the Board of License Commissioners of the city.

The question for decision presented the court was whether the city has a right to forbid a person to take shellfish from this area unless he has such a permit. Stated more broadly, the issue is whether a city or town can regulate the taking of shellfish in an area under the control of the Metropolitan Commission.

The higher court held in the affirmative, saying: "Primarily clams are dug because of their value and use as an article of food. It is apparent that the Legislature has always regarded shellfish as a valuable economic resource, in the protection of which the cities and towns bordering on the coast have a peculiar interest. We hold that the city has not been divested of its right of control over the taking of shellfish in the area in question."

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## Provincetown Fishermen Attend State House Hearings

Fishing activity in Provincetown closed down February 25 while many fishermen traveled to Boston to attend public hearings in the State House on four bills which would affect the fishing industry of the port. There were no boats out of Provincetown, and fish houses on both wharves closed for the day.

Bills up for hearing before the Committee on Conservation included the following: Senate Bill 4, which would make unlawful the use of otter or beam trawls in territorial waters of the State between a line extending from Winthrop Head through Graves Light and a line drawn from Gurnet Light to Race Point Light to the marine boundary of the Commonwealth.

Senate Bill 160, providing a stiffer penalty for violations of fishing laws.

House Bill 855, allowing dragging up to ½-mile from shore from Nauset to Nun Buoy No. 2, off Chatham.

Senate Bill 153, allowing dragging in territorial waters from Winthrop Head to the marine boundary between Massachusetts and New Hampshire.

## Westport Scallop Planting Proves Successful

A \$100,000 annual scallop industry has been developed in Westport by the State Marine Fisheries Division. Shortly after his 1947 appointment as State Marine Fisheries Director, Francis W. Sargent took on the challenge of producing bay scallops in the two branches of the Westport River. After studying the problem, Sargent ordered 100 bushels of seed scallops taken from Lewis Bay in Barnstable and liberated in the west branch of the River.

Although results were not spectacular for the first two years, scallops began appearing there in increasingly greater numbers. In 1952 Westport really hit the jackpot with a crop valued in excess of \$100,000, proving that scallops can be successfully transplanted.

Though 1952 was a poor year for scallops in Massachusetts, in addition to the bumper crop at Westport, tremendous beds of seed scallops were found where the original planting was made. The Division has experimented again and made small plantings in Mattapoisett and on Cuttyhunk Island, which are being watched carefully.

## Alabama Reefs Near Mobile Opened to Oystering

State Conservation Director Earl M. McGowin opened to oyster taking recently several Alabama coastal reefs near Mobile which were closed during the first part of the season. Oystermen now can tong on North Central Portersville Bay west of Grand Point; on East Portersville Bay south of the mouth of West Fowl River, and on East Bon Secour Bay on a reef named Fish River Reef. The season will remain open in those areas until further notice from the State Department of Conservation.

The areas were planted last year and were kept closed during the early part of the oyster season to allow the oysters to reach legal size before harvesting.

## Ramos Buys Coffee Island Plant

The Ramos Shrimp Co. has purchased the Coffee Island Co., Inc. of Bayou LaBatre, and soon will begin breeding shrimp there in 10-ounce consumer packages. The Coffee Island plant consists of a 100' x 100' building on Bayou LaBatre, with about 200' of dockage. The plant was built five years ago, and has a daily shrimp freezing capacity of 5,000 lbs. and holding capacity of 250,000 lbs.



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## History of Oyster Industry

(Continued from page 17)

largest was 143' long, displaced 476 tons, carried a crew of 21, and operated six steel dredges. These were lowered over the side on chains, towed until full, raised to the deck by steam hoisters, and dumped by the crew, with contents shovelled back into the pile by hand. Such a steamer, carrying a cargo of 7,000 bushels, took 1,200 bushels of oysters an hour.

### Period of Scarcity

From 1900 we enter a fifty-year period of great change. Increasing pollution of harbors and inshore areas obliged the industry to move away from densely populated sections; many firms, unable to do so, disappeared. A time of severe price competition forced some companies into bankruptcy. Between 1910 and 1920 occurred a sequence of crop failures. These lean periods had been noted as far back as the 1870's. Many theories have been advanced to explain why oysters do not reproduce in certain years, but complex environmental factors are involved and it is impossible to give definite reasons with any assurance. As a natural result of scarcity, the price of northern oysters rose and the food became a luxury.

Soon after 1925 the U.S. Public Health Service and State Health Departments set up a system of sanitary control to protect the public interest by close supervision of coastal waters and packing houses. The growing of oysters for market was restricted to approved areas and official permits were required for all harvesting and packing operations. Over the years a close relationship between growers and official agencies has developed.

In the thirties Connecticut growers survived the depression in spite of several crop failures and an invasion of starfish which did much damage. This decade was marked

by increased scientific investigations carried on by various agencies, but especially by the Fish and Wildlife Service of the Department of the Interior. The hurricane of 1938 severely hurt oyster crops of all ages.

### Mechanization of Industry

With 1940 came several good setting years, economic activity, and profitable operation. Manpower shortages caused by the war put strains on all business and intensified the search for labor-saving devices. When hostilities ceased in 1945, the northern oyster industry perfected a number of mechanical improvements in the handling and protection of its crops. For instance, there are mechanical dredges which go overboard, take oysters, come to the deck, unload themselves on to a ship's conveyor, and which return to the water almost without human agency!

There is improved control of oyster drills through suction dredging, involving use of an appliance looking like a giant vacuum cleaner. Instead of the old steam propulsion of fifty years ago, oyster vessels are equipped with powerful Diesel engines. In place of the slow voyages of former times, for example, a large suction dredge leaves New Haven, Conn. in the early morning, runs to Gardiners Bay at the eastern end of Long Island, takes 2,500 bushels of market oysters, returns to New Haven and unloads the same day.

While the severe storm of November 1950 was a disaster, destroying large plantings of seed oysters in Long Island Sound, there is reason to believe that the industry will go forward. Nature will continue, with man's help, to produce crops of oysters. Human enterprise will persevere in this novel form of underwater farming and will succeed in it. Here is a fishery, three hundred and fifty years old, almost destroyed by ruthless exploitation, which became a successful form of shellfish culture through the ingenuity and resourcefulness of the oystermen. In its present phase, it shows the ability to meet the changing times and conditions which affect all types of human activity.



# Equipment and Supply Trade News

## Sudbury Laboratory Has Engine Alarm

Sudbury Laboratory, South Sudbury, Mass., has developed an engine alarm which will ring a buzzer and flash a red light if engine temperature goes above 200 degrees. This device warns boat operators that something is wrong before any damage can be done to the power plant. It consists of a completely enclosed adjustable thermostat which can be installed on the engine by simply removing one engine head nut. A single wire runs from the thermostat to a neatly-designed instrument which can be put at any point on the boat.



Carlyle H. Jones, who has been appointed director of advertising and public information of the Sperry Gyroscope Co., Great Neck, N. Y. He has been occupied with public relations activity for the Company since his return from military leave in 1946, the last two years as manager of public information. Prior to his service as a naval reserve officer in the Pacific theater, Mr. Jones was engaged in employee communications work with the Company.

## New Clutch Control for Chris-Craft Engines

Chris-O-Matic, a new finger-tip clutch control was introduced recently by Chris-Craft. Employing a principle already proved in many aircraft, automotive and industrial applications, Chris-O-Matic is an electric-hydraulic mechanism designed exclusively for Chris-Craft marine engines. Each unit is completely assembled, tested and ready for installation. No change in the standard reverse gear is necessary.

Once the skipper flips the shift-selector, at the control station, an electric motor instantly pumps hydraulic fluid into a cylinder to move a piston that quickly and smoothly accomplishes the desired shift. The heavily chromed control head contains a special cam-switch that assures positive contacts, thus allowing engine warm-ups without objectionable "creeping".

The new control can be used on all Chris-Craft engines



Chris-O-Matic finger-tip control unit shown mounted on engine, with clutch shifted to forward.

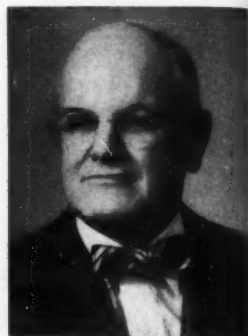
except the 60 hp. Model "B", and no technical knowledge is required to install it on boats already in use. This new control saves weight, being only a third as heavy as the ordinary bell cranks, control rods and levers.

## New Columbian Rope General Sales Manager

Gardner P. Dynes of the Columbian Rope Co. was appointed to the position of General Sales Manager at a recent meeting of the Board of Directors. Mr. Dynes will succeed Charles H. Mosher who will, however, continue to serve as Vice President of Sales for the Company.

Mr. Dynes has been associated with the Columbian Rope Co. for the past 36 years, first joining the organization in 1917. He served in World War I, returning to the Company in 1919.

After working in several departments throughout the mills at Auburn, N. Y., Dynes was transferred to the Company's Chicago branch. He covered territory in that area until 1927, at which time he returned to Auburn. He was made Assistant Sales Manager in 1941, and was named as Assistant General Sales Manager in 1948, a position he has held continuously since that time.



Gardner P. Dynes

## Nordberg Offers Operator's Manual

A new 68-page Operator's Manual and Parts Catalog is available for \$2.00 from the Gasoline Marine Engine Service Department, Nordberg Manufacturing Co., Milwaukee 1, Wisc. This attractive two-color book is fully illustrated and concisely presents factory data on the installation, operation and maintenance of the complete line of Nordberg 6-cylinder gasoline marine engines.

The catalog, produced for boat owners and operators, contains illustrations of all assemblies and their component parts, together with accurate dimensional drawings of each engine. Proper installation and preliminary inspection procedure is discussed, as well as the various phases of operation.

So that maximum efficiency can be obtained from each engine, 16 pages of the new book are devoted to a complete established maintenance program. Clearance-torque and horsepower-propeller data is given in table form. The second half of the book contains full catalog listings of all parts, both standard and optional, and exploded views are authentically presented for proper parts identification and assembly.

## New Bowers Distributors, Sales Engineer

Five marine firms have been appointed distributors for Bowers marine batteries, according to a recent announcement by Paul E. Goodrich, Sales Manager of the Marine Division of Bowers Battery & Spark Plug Co., Reading, Pa. All of these distributors will carry a complete line of Bowers marine batteries.

Herman Marine Service, Bay View Park, Toledo, Ohio, will cover sales in Toledo and Northwestern Ohio. The entire Western portion of New York State, including Buffalo, will be serviced by Jafco Marine Basin, Inc., 2192 Niagara St., Buffalo, N. Y.

Butler Marine Service, Green Ave., Brielle, N. J., will

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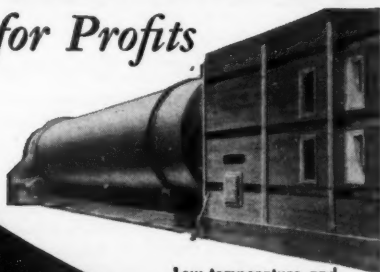
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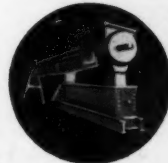
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handle sales in the State of New Jersey, from Elizabeth south to Ocean City. Washington, D. C., and Northern Virginia will be covered by the Washington Marina, 1300 Marine Ave. S. W., Washington, D. C. Industrial & Marine Supply Co., 6440 Gratiot St., Detroit, Mich., will service Eastern Michigan, including Detroit.

A. C. Weinstock, who brings with him a wide knowledge of the battery business acquired during his 32 years association with the transportation industry, has been appointed a Bowers Sales Engineer. He lives in Newton, Mass., and his territory will include New England, New Jersey and New York.

The opening of a complete battery manufacturing plant at Hialeah, Fla., has been announced by C. P. Bowers, president of Bowers Battery & Spark Plug Co. "When we opened our Macon, Ga., plant six years ago we felt certain that this plant would be able to meet our entire Southern battery requirements for at least 10 years," Bowers stated, "but now we find this additional plant necessary in order to meet sales requirements."

### Rust-Oleum Publishes Marine Catalog

The Rust-Oleum Corp., 2799 Oakton St., Evanston, Ill., has published a new marine catalog which has the answers to many coating problems. This handy pocket-sized booklet is complete and easy-to-read. Its 12 colorful pages give detailed instructions for the surface preparation and use of Rust-Oleum primers, deck and superstructure coatings, engine room finishes, hull, boot-topping, and anti-fouling coatings, varnishes, and special skid-resistant coatings.

Included is an actual cut-a-way of a ship with special designations showing the uses of the extensive Rust-Oleum coating line. In addition, the new Rust-Oleum marine catalog features 38 different color chips for accurate sampling of colors.

ATLANTIC FISHERMAN - MARCH, 1953

**DEPENDABLE POWER  
FOR MARINE AUXILIARIES**

**Lister**

**DIESELS**

**Rated from 8 to 54  
Horsepower**

Here's dependable power for pumps, generators, winches, refrigerating machinery and every other auxiliary marine requirement.

Be sure to ask for new bulletins describing these Lister Diesels. Write

**ENGINE DIVISION  
THE NATIONAL SUPPLY COMPANY**

SPRINGFIELD, OHIO

Distributors of *Lister* Diesels in the U.S.A.



**100% SATISFIED With RAYTHEON RADIOTELEPHONE says...**

**CAPT. PERRY LAWSON, SR.**  
South West Harbor, Maine

"My Raytheon 25 Watt Radiotelephone out-performs any 50 watt set on the Coast. In fact, owners of sets rated at more power than mine often ask me to relay messages for them."

"My FATHOMETER JR., echo depth sounder also does a wonderful job. I use it for depths down to 35 fathoms beyond its range with clear definition all the way. I can change chart paper in less than three minutes and frequently use the same roll as many as six times." — Capt. Perry Lawson, Sr.



**Submarine Signal FATHOMETER\* CADET**  
An accurate yet low cost indicating sounder for small power and sailing craft. Shows depths from 1 foot to 160 feet at 900 soundings per minute. Finds fish; warns of shoals, ledges, underwater hazards. Installs in most boats without lay up or holes in hull.



**Submarine Signal FATHOMETER\* JR. Recording Models 1373 and 1373S**  
Records contour and type of bottom on moving chart; length, density and depth of fish schools. Model 1373 with dual range 1 to 100 and 100 to 200 fathoms. Model 1373S with dual range in feet for shallow water soundings: 1-200 and 200-400 feet.



**Submarine Signal FATHOMETER\* JR. Indicating Model 1080C**  
A red light indicator that shows water depth beneath keel 240 times per minute; depth range to 600 feet — 100 fathoms; warns of shoals, reefs, hidden hazards; finds fish; facilitates bottom navigation. Simple, compact, easy to install.



**A Complete Line of RAYTHEON RADIOTELEPHONES**  
10, 25, 35 and 100 watt models... new in design, more compact, easier to install with all the latest features you need for dependable contact with shore, coast guard or other vessels.



**SEE YOUR AUTHORIZED RAYTHEON MARINE DEALER** about the right Fathometer\* Echo Depth Sounder and Raytheon Radiotelephone for your needs. Ask about convenient payment plan or write for details.

**RAYTHEON**  
MANUFACTURING COMPANY  
EQUIPMENT SALES DIVISION  
DEPT. 6270, AF WALTHAM 54, MASSACHUSETTS

DISTRICT OFFICES: BOSTON, NEW YORK, CLEVELAND, CHICAGO, NEW ORLEANS, LOS ANGELES (WILMINGTON), SAN FRANCISCO, SEATTLE  
INTERNATIONAL DIVISION: 19 RECTOR ST., NEW YORK CITY

Raytheon Products Include: Mariners Pathfinder\* Radar, both 10cm and 3cm; Submarine Signal Fathometer\* Echo Depth Sounders; Marine Radiotelephones and other electronic equipment.  
\*Reg. U. S. Pat. Off.

## Footo Named President H. M. Sawyer & Son



Charles L. Foote

Charles L. Foote was elected President of The H. M. Sawyer & Son Co., Cambridge and Lowell, Mass., and its coated fabrics division, The Brunsene Co., Watertown, Mass., at a recent meeting of the board of directors. He succeeds the late Howard M. Sawyer.

Mr. Foote joined The H. M. Sawyer & Son Co. in 1948 as General Manager, and is a director of the firm. The Sawyer Company was founded in 1840 and pioneered in the protective clothing field.

## Booklet on Caterpillar Service Organization

A new four-page booklet recently published by Caterpillar Tractor Co. is entitled: "Wherever You Dock—You'll Find Caterpillar Service". The leaflet gives information about the parts and service organization that stands behind Cat marine engines, and can be obtained from all Caterpillar dealers or by writing Caterpillar Tractor Co., Peoria, Ill.

On the second page of the pamphlet is a map locating all of the Caterpillar marine engine service shops on the North American continent. This group of shops is located by States and countries on the back page. The booklet points out that throughout the world, there are almost 600 Cat service shops in more than 110 countries.

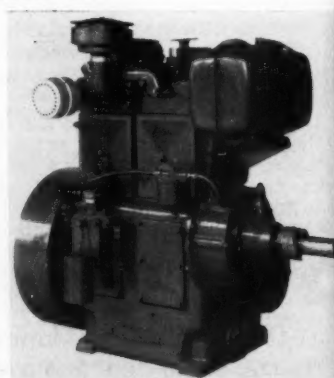
## Cordage Institute Officials Re-elected

William C. Cating, Vice-President of the Cating Rope Works, Maspeth, N. Y., was re-elected president of the Cordage Institute, and chairman of its Executive Committee, at the Institute's recent annual meeting.

All other members of the Executive Committee who served with Mr. Cating in 1952 also were re-elected. They are E. E. Bockstedt, Columbian Rope Co.; B. B. Bradley, Plymouth Cordage Co.; John Goble, Wall Rope Works, Inc.; and C. D. McAllister, American Manufacturing Co.

## New Petter Compressor Set

The Petter Small Engine Division of Brush Aboe, Inc., Empire State Bldg., 350 Fifth Ave., New York 1, N. Y., recently introduced the new AV2C compressor set into its list of products. Without any major alteration to its basic structure, the twin cylinder AV2 Diesel engine has emerged with one power cylinder replaced by a compressor cylinder, thus producing a compact, water-cooled air compressor set capable of an output of 8 cubic feet of air per minute at a pressure of 350 p.s.i. At an alternative setting 15 cubic feet per minute at 100 p.s.i. continuous rating can be obtained.



Petter's new AV2C compressor set.

The versatility of this unit is further enhanced by the retention of the Petter half speed output shaft enabling the user to take off up to 3 hp. at 750 rpm. for generator or pump service with the compressor running unloaded. Apart from the cylinder head and piston, no further spare parts other than standard parts are required.



## Florida Fishery Laws

(Continued from page 18)

Atlantic States Marine Fisheries Commission, of which Florida is a member. These Commissions have proven invaluable in providing an organized forum for the exchange of ideas and information between the States and the Fish & Wildlife Service, so that all States may benefit from the experience of each, as well as to work out cooperative fishery explorations and research work that is needed.

11. Fix standards of quality, sizes and maturity.
12. In general, have authority to permit the taking, capturing, possession and sale, purchase and transportation of salt water products.

### Penalty Provisions Inadequate

The present penalty and confiscation provisions are wholly inadequate and a complete re-writing is necessary. The powers and duties of the conservation agents should be clearly defined, so that the agents will have adequate authority to carry out a proper enforcement job.

A long-range comprehensive information and education program is essential to a worthwhile conservation program. Therefore, it is recommended that the new law provide that such a division be set up in the Conservation Department—to work in close cooperation with the laboratory doing research for the State in order that all necessary information may be made available to the public. It would be the duty of this educational director to be continuously devising new methods and ways of getting this information to the people. If such a course was not only taught but made a required subject in our public schools, it would be fortunate for the future conservation and development of our natural resources.

We need to completely revise the tax structure of the Conservation Department, as the Supreme Court of Florida held in the Hall v. Caldwell case, 37 So. 2d 421, that it cannot be said that the license law of this State is not ambiguous. In fact, in trying to piece it together it has been found to be so uncertain and indefinite that it is literally impossible to determine just what the Legislature intended. A tax structure should be devised that will give both government and industry, meaning both sportsmen and commercial interests, a fair deal.

### Collection of Licenses

At present our conservation agents are the sole collectors of licenses relating to the taking and sale of salt water products. I feel that such a system is wholly inadequate. It means that most of our agents spend the greater part of their time visiting wholesale and retail seafood establishments in some areas, whereas, in at least 28 counties of Florida we do not have agents and no one to collect licenses at all.

It is recommended that some public office in every county, such as the county judge's office or tax collector's office, be designated to sell licenses, and that all peace officers, including sheriffs, constables, as well as conservation agents, be empowered to collect licenses and make arrests to enforce the license and other conservation laws. This would enable the Department to have officers to enforce the license laws in all counties, as well as a local office to issue the licenses.

At present licenses are issued in Tallahassee. In the 28 or more counties without agents, we have many places selling seafood that have never bought a license out of Tallahassee, and we have peddlers selling from their trucks with no one in those counties to collect a license from them.

It is recommended that in providing a competent force for the Conservation Department, a position of Assistant Supervisor of Conservation or Administrative Assistant be created, with a sufficient salary to attract a qualified man. It might be advisable to have such a person in charge of law enforcement. This would place some direct supervision over the agents, and bring about more effective law enforcement.

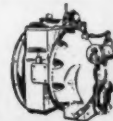
# RELIABLE



**"S-N MARINE GEARS**  
*have always given me*  
**100% satisfaction ..."**

... says fleet owner Charles Ludwig of the Ludwig Shrimp Company, Miami, Florida. His shrimp trawler, the Micheal Angelo (designed for Campeche Bay shrimping) is powered by a 120 H.P. Caterpillar Diesel with S-N marine gears. This unit has a double cone clutch working in a bath of oil assuring smooth operation and long life. The reverse unit transmits 100% of engine speeds through the 3:1 ratio S-N heavy duty herringbone reduction gear. Always reliable, the S-N balanced gear train assures long, trouble-free service under all conditions.

S-N Manual — Hydraulic — Air Operated Gears  
On the Finest Marine Engines 4 to 1000 H.P.

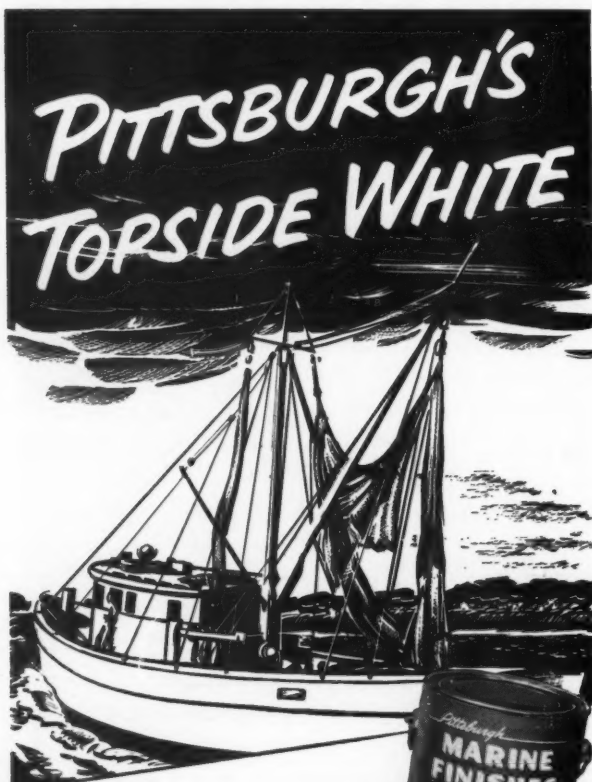


## SNOW-NABSTEDT

*Transmission Engineers*  
FOR NEARLY HALF A CENTURY



THE SNOW-NABSTEDT GEAR CORP., HAMDEN, CONN.



# PITTSBURGH'S TOPSIDE WHITE

## Really Fume-Resistant! Keeps Hulls and Superstructures Looking Whiter Longer

THERE'S good reason why so many builders and operators prefer Pittsburgh's Marine Topside White for hulls and superstructures. It's really fume-resistant!

● Neither fumes from fuel, foul water, dock and harbor sewage nor sulphurous industrial vapors will discolor it. Topside White will not chalk excessively, or crack and mar easily. It can be scrubbed repeatedly, without appreciable signs of wear. You can't get better protection against the ravages of sun, wind, rain, ice and salt spray.

● Pittsburgh provides special finishes for every marine need. Write for free booklet that often can save you time and money in upkeep.

### IMPORTANT NOTICE TO SHIP CHANDLERS

● Although Pittsburgh Marine service covers most important ports, we have a few opportunities for ship chandlers. If interested, write, wire or phone the factory nearest you.

PITTSBURGH PLATE GLASS CO., Industrial Paint Div., Pittsburgh, Pa. Factories: Milwaukee, Wis.; Newark, N. J.; Springdale, Pa.; Atlanta, Ga.; Houston, Texas; Los Angeles, Calif.; Portland, Ore.; Ditzler Color Div., Detroit, Michigan. The Thresher Paint & Varnish Co., Dayton, Ohio. Forbes Finishes Division, Cleveland, Ohio. M. B. Suydam Div., Pittsburgh, Pa.



## PITTSBURGH PAINTS

PAINTS • GLASS • CHEMICALS • BRUSHES • PLASTICS

PITTSBURGH PLATE GLASS COMPANY

## Minimum Mesh Size

(Continued from page 15)

fronted with the fact that no net is perfectly selective. No net has been designed that will release all fish under a certain size and retain all fish over that size.

The selectivity of nets is designated by the 50-percent point. This is the size of fish of which 50 percent are retained by the net. Increasing percentages of the larger sizes are retained, while decreasing percentages of the smaller sizes are retained. The selectivity chosen to satisfy the requirements of the Commission has a 50-percent point at about 1.1 lbs. With a mesh of this selectivity some fish of unmarketable size still will be taken, but this cannot be prevented if we are to avoid a serious reduction in landings during the first year or two of the regulation.

The actual reduction in landings the first year of regulation will depend upon the size of the haddock available on the banks during that year. If the fish are running larger than average, the regulation will have very little effect on landings. If the fishery is depending largely upon small scrod, as it was during the Summer of 1952, the effect will be greater.

Indications are that the sizes of haddock available on Georges Bank in the coming year will be about the same as in 1951. If this is the case, the initial effects of the use of the new mesh (having 50-percent selection at 1.1 lbs.) would be to reduce landings (in pounds) about 13 percent if the market accepted fish as small as some of those landed during 1952. The reduction in landings of fish of 1½ lbs. and over, however, would be only about 5 percent. If the size of fish during the first year of regulation is close to the average for the past 20 years, the initial reduction in landings of fish of 1½ lbs. and over would be expected to be only about 3 percent.

The new mesh will advance the age of first capture to about 2½ years rather than 3 years, and so will not produce the maximum ultimate benefit. It should, however, result in an ultimate increase in landings of about 35 percent. The full effect of the new mesh will not be realized for several years.

## Results of Larger Mesh to Be Studied

It is the Commission's expressed desire that the effect of this regulation be carefully measured. Scientific evidence of the benefits of the first step must be presented before any further increase in the mesh size of nets will be recommended. U. S. Fish & Wildlife Service biologists will make a continuous study of the fishery and the Commission will review the situation annually. Modifications in the regulation will be recommended whenever they appear desirable on the basis of any new evidence which may be found.

In order to measure the effect of the regulation it will be necessary to have the cooperation of the fishing industry. A number of vessels must continue to fish with small-mesh nets in order to provide biologists with a measure of the abundance of two-year-old fish on the banks.

The success of spawning varies so much from year to year due to natural causes that considerable variations in subsequent annual landings result. Therefore, the effect of the regulation cannot be determined by a comparison of the landings in the years immediately preceding and immediately following the use of the large-mesh nets. The best test of the regulation will be the comparison of the yields of individual year classes before and after regulation.

As a result of the intensive study of the Georges Bank haddock fishery over the past 20 years, we now have records of the relative strengths of each incoming year class and the total pounds of fish which each contributed to the landings. If the regulation has the predicted effect, an entering year class of a given strength should produce more pounds of landed fish than did any incoming year class of equal strength before regulation.

In order to make this comparison it is necessary to measure the incoming year classes after regulation in the



# B&W Alpha

The Yankee is another fishing boat that depends on the B&W ALPHA integrated power unit, consisting of a rugged diesel engine and pilot house operated controllable pitch propeller and clutch. Captain Tony Parco says: "The power and control I now have on the Yankee is just what we have needed for dragging. The Burmeister engine and controllable pitch wheel is really the perfect unit."

**BURMEISTER & WAIN AMERICAN CORPORATION**  
17 Battery Place, New York 4, N. Y.

same manner in which they are measured now. The present measure consists of computing the average catch per day of a selected group of trawlers. The youngest haddock that can be measured adequately are two-year-olds, since one-year-olds are not landed in sufficient numbers. Not all of the two-year-olds are landed, but so long as the size of mesh remains constant this does not matter as the abundance index is only relative. However, if the mesh size is increased, the measure of abundance of two-year-olds will no longer be comparable. For this reason it is necessary that some vessels continue to fish nets with the old mesh.

The Fish & Wildlife Service has called upon the industry to select six boats for this purpose. These boats will be licensed to use small-meshed nets and will comprise a "study group" to supply the information necessary for establishing the strength of each incoming year class. The information on the yield of these year classes can be obtained from samples of the catch of the rest of the fleet.

### Flat Gauge Used for Measuring

The Commission has recommended the use of nets with a minimum inside opening of  $4\frac{1}{2}$ " when in use. This dimension is measured by inserting a flat gauge into the mesh under a pressure of 12 lbs. It is the size of this inside opening which determines the selectivity of the net.

Unfortunately this is not the measurement which is used in the trade. Net manufacturers use the dimension "between knot centers". The relation between the two measurements is not constant but depends upon the size of twine and number of strands used. The use of large twine results in larger knots which increase the difference between the two dimensions. Doubling the twine has the same effect.

Using the net also changes the relation between the two measurements. When a new net is immersed in water the twine shrinks. As the net is used, however, the

knots tighten and the inside dimension increases. This continues for some time or until very heavy catches are hauled aboard when the knots may tighten to their maximum and the internal opening thereafter remains fairly constant. Since in present fishing practices the after part of the cod end of the net is subjected to greater strains than the forward part, the openings of the meshes are usually larger in the after part following use.

To obtain 50-percent selection of haddock at 1.1 lbs., it is necessary to use a cod end with an average inside dimension of  $4\frac{1}{2}$ ". The meshes may be somewhat smaller in the forward part and somewhat larger in the after part.

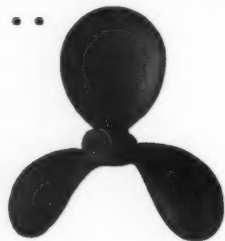
Experiments have been conducted on board commercial trawlers during normal fishing operations on Georges Bank in order to determine the size of mesh which will, after use, have an inside dimension of  $4\frac{1}{2}$ ". These experiments show that a cod end of  $5\frac{1}{8}$ " mesh (measured between knot centers, new) constructed of 50-yard, 4-thread, double-manila twine will, after use and when wet, have an average inside mesh dimension of  $4\frac{1}{2}$ ", provided it is used in normal fishing operations during which moderately heavy catches of fish are taken. (Weight of twine is expressed in number of yards per pound).

The results of the experiments also showed that bellies of trawls of 5" mesh (measured between knot centers) constructed of 75-yard, 4-thread single twine will, after use and when wet, have an average inside dimension of  $4\frac{1}{2}$ ". Bellies of  $5\frac{1}{2}$ " mesh (measured between knot centers) constructed of 60-yard, 4-thread, single twine, will under the same conditions have a somewhat larger inside dimension.

The new regulation prescribes only the size of the internal mesh opening. Various sizes of mesh as measured between knot centers can be used to produce the  $4\frac{1}{2}$ " inside measurement depending upon the size of twine.



## EXPERT RECONDITIONING ON PROPELLERS OF ALL SIZES . . .



PRECISION EQUIPMENT and expert workmen insure an accurate repair job. We guarantee our work. Estimates gladly furnished. Send your damaged propeller to us for free inspection and report.

**HYDE WINDLASS COMPANY**

BATH, MAINE

# HYDE

## PROPELLERS



Commercial fishermen who fish in American waters and sell their fish to American people help their own industry when they use hooks made by U.S. labor. Pflueger Hooks have the sharpest points—the finest temper and most excellent finish. Made by 3rd generation of Pfluegers—We've been making hooks since 1864. Ask your supplier.

THE ENTERPRISE MFG. CO., AKRON, OHIO  
89 years making fine fishing tackle

# PFLUEGER

(Pronounced "FLEW-GER")

A GREAT NAME IN TACKLE

## Fish Landings

### For Month of February

Hailing fares. Figure after name indicates number of trips.

#### GLOUCESTER

Alden (3)	15,000	Kingfisher (1)	76,000
Althea (3)	32,000	Linda B. (5)	16,500
American Eagle (3)	20,000	Little Flower (7)	43,000
Anna Guarino (7)	4,500	Little Joe (8)	17,500
Ann & Marie (1)	500	Lois Pete (1)	8,000
Annie (3)	3,000	Lois T. (1)	5,000
Annie II (3)	2,000	Lucy Scola (4)	6,000
Anthony & Joseph (1)	2,000	Madame X (2)	3,500
Anthony & Josephine (7)	12,500	Manuel P. Domingos (2)	197,000
Ave Maria (2)	29,000	Maria Immaculata (7)	22,000
Baby Rose (1)	65,000	Mary (8)	10,000
Benjamin C. (1)	144,000	Mary & Josephine (1)	58,500
Bonaventure (2)	122,000	Mary E. (2)	1,500
Brighton (1)	160,000	Mary Rose (1)	30,000
California (2)	28,000	Michael P. Densmore (1)	40,500
Cara Cara (1)	128,000	Minkette 1st (3)	2,500
Carlo & Vince (4)	15,500	Mother Ann (1)	235,000
Carol Jean (1)	13,000	No More (2)	2,500
Catherine (2)	3,500	Novelty (8)	10,500
Charlotte M. (1)	90,000	Ocean Life (1)	385,000
Chebeague (3)	27,500	Phillip & Grace (1)	80,000
Cigar Joe (5)	42,500	Puritan (1)	69,000
Columbia (1)	123,000	Rose & Lucy (3)	25,000
Curlew (1)	66,000	Rosemarie (3)	35,000
Doris F. Amero (1)	52,000	Rosie & Gracie (2)	23,000
Eleanor (2)	33,000	Sacred Heart (5)	7,000
Emily Brown (2)	93,000	St. Anthony (1)	96,000
Estrela (1)	98,000	St. Bernadette (1)	38,000
Eva M. Martin (1)	500	St. Francis (5)	9,500
Eva II (1)	1,000	St. John (5)	5,500
Falcon (5)	7,000	St. Mary (9)	35,500
Frances R. (2)	16,500	St. Nicholas (1)	79,500
Frankie & Jeanne (1)	500	St. Peter (6)	46,500
Gertrude E. (1)	500	St. Providence (7)	9,000
Golden Eagle (1)	120,000	St. Victoria (1)	6,000
Hazel B. (1)	105,000	Salvatore (4)	3,000
Helen B. (2)	27,000	Salvatore & Grace (1)	20,000
Holy Name (2)	14,000	Santa Lucia (8)	13,500
Ida & Joseph (2)	14,500	Sebastiana C. (5)	49,500
Immaculate Conception (2)	23,500	Serafina N. (3)	36,000
Irma Virginia (3)	5,000	Serafina II (6)	47,000
Jackie B. (5)	37,000	Theresa M. Boudreau (1)	185,000
Jackson & Arthur (4)	4,900	Trimembral (8)	9,000
J. B. Junior (7)	43,500	Virgin'a Ann (4)	6,000
Jennie & Julia (3)	24,500	We Three (2)	4,000
Johnny Baby (5)	4,000	White Owl (7)	5,500
Joseph & Lucia (1)	45,000	Wild Duck (1)	100,000
Josie II (3)	3,000	Yankee (6)	73,000
Killarney (1)	70,000		

#### Scallop Landings (Lbs.)

Nellie-Pet (2)	18,900
----------------	--------

#### WOODS HOLE

Bernice (2)	4,000	Gertrude D. (1)	11,100
Cap'n Bill II (2)	44,800	Hazel S. (3)	7,800
Connie F. (1)	17,800	Julia K. (3)	8,300
Dolly & David (2)	1,700	Madeline (3)	5,900
Elva L. Beal (1)	3,600	Phyllis J. (1)	2,400
Etta K. (1)	2,800	Priscilla V. (3)	22,700
Eugene H. (1)	4,700	Santo Antonino (2)	3,000
Four Bells (1)	1,700	Southern Cross (1)	2,200

#### Scallop Landings (Lbs.)

Pearl Harbor (1)	1,183
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#### STONINGTON, CONN.

Alwa (2)	200	Old Mystic (5)	1,800
America (6)	2,000	Our Gang (1)	1,000
Carl J. (4)	3,100	Pvt. Frank Kessler (3)	7,500
Carolyn & Gary (2)	400	Ranger (2)	4,000
Catherine (1)	100	Rita (1)	400
Fairweather (1)	1,400	Russell S. (3)	11,700
Irene & Walter (6)	4,300	Theresa (2)	6,700
Lt. Thomas Minor (1)	200	Vagabond (4)	1,000
Mandalay (4)	2,800	William B. (7)	1,300
New England (2)	900		

## BOSTON

Acme (5)	6,000	Margaret Marie (4)	6,700
Addie Mae (7)	7,900	Maria Christina (4)	12,000
Adventure (1)	59,500	Maria Del S. (1)	1,100
Agatha & Patricia (5)	79,700	Marietta & Mary (1)	5,400
American Eagle (1)	18,100	Mary & Jennie (5)	6,400
Angie & Florence (1)	5,100	Mary & Josephine (1)	115,000
Annie & Josie (8)	9,800	M. C. Ballard (2)	114,000
Arlington (3)	472,000	Michael G. (3)	9,900
Atlantic (3)	253,900	Michigan (2)	224,800
Ave Maria (Dragger) (10)	51,200	Mother of Grace (4)	18,300
Barbara C. Angell (2)	149,700	Nancy B. (3)	34,800
Bay (2)	182,200	Neptune (2)	162,000
Benjamin C. (1)	110,600	Ohio (2)	175,500
B. Estelle Burke (1)	59,000	Olympia La Rosa (1)	23,500
Bonnie (2)	265,200	Pam Ann (3)	261,100
Bonnie Lou (2)	146,300	Phantom (2)	269,000
Calm (2)	347,000	Philip & Grace (1)	100,800
Cambridge (3)	363,400	Plymouth (2)	132,500
Carol & Jean (2)	41,800	Princess (4)	9,400
Catherine B. (Dragger) (2)	46,900	Puritan (1)	44,400
Catherine B. (L.T.) (3)	15,700	Quincy (2)	221,500
Catherine T. (1)	14,400	Racer (2)	118,000
Columbia (1)	106,900	Raymonde (2)	59,700
Comet (2)	159,200	Red Jacket (2)	214,600
Crest (1)	184,000	Roma (6)	8,900
Diana C. (5)	37,300	Rosie (5)	7,900
Dolphin (2)	125,100	Rush (2)	224,000
Dorchester (2)	260,500	Sacred Heart (8)	10,200
Drift (2)	282,600	St. Anna (3)	21,200
Elizabeth B. (2)	131,500	St. Bernadette (1)	92,000
Esther M. (2)	277,800	St. Joseph (4)	112,500
Famiglia (2)	24,300	St. Michael (3)	10,300
Felicia (2)	242,200	St. Nicholas (1)	83,700
Florence & Lee (1)	71,500	St. Peter II (2)	189,800
Flying Cloud (2)	317,700	St. Victoria (2)	61,200
4-C-688 (3)	9,800	Salvatore & Grace (3)	51,200
4-G-673 (2)	6,700	San Antonio II (5)	28,400
4-H-823 (1)	3,800	San Calogero (6)	14,300
4-R-630 (3)	12,900	Santa Rita (3)	11,900
Francis L. MacPherson (2)	133,900	Santa Rosalia (4)	18,900
Gaetano S. (2)	136,600	Santina D. (2)	30,900
Hilda Garston (2)	184,400	Savoia (2)	13,100
Holy Family (1)	71,600	Sunlight (2)	172,900
Ida & Joseph (3)	70,800	Surge (2)	205,000
J. B. Junior (2)	196,400	Swallow (2)	289,400
Joseph & Lucia (1)	80,500	Sylvester F. Whalen (1)	116,500
Josephine F. (6)	24,400	Texas (2)	148,500
Josephine P. II (2)	29,300	Thomas Whalen (2)	175,300
Julie-Ann (2)	165,200	Triton (2)	220,700
Leonard & Nancy (3)	110,000	Vincle N. (2)	65,400
Little Nancy (2)	57,300	Wave (2)	337,300
Lucky Star (2)	156,500	Weymouth (2)	172,600
Mabel Mae (2)	172,800	Wm. J. O'Brien (3)	336,200
Maine (2)	223,800	Winchester (3)	339,100
		Winthrop (2)	214,900
		Wisconsin (2)	308,600

## PORTLAND

Agnes & Elizabeth (2)	77,400	Immaculate Conception (1)	600
Alice M. Doughty (1)	1,500	Lois F. (1)	400
Alice M. Doughty II (3)	63,300	Notre Dame (1)	11,600
Batavia (1)	170,000	Polaris (1)	17,400
Brighton (2)	49,700	St. George (1)	131,000
Carmella & Lois (3)	4,000	Sea King (3)	56,700
Courier (4)	180,200	Serafina (2)	1,800
Crescent (1)	3,000	Silver Bay (1)	132,000
Elinor & Jean (4)	63,500	Thomas D. (2)	49,500
Ethelina (3)	44,600	Vagabond (2)	51,700
Geraldine & Phyllis (3)	74,700	Vandal (3)	195,400
Holy Name (1)	400		

## Scallop Landings (Lbs.)

Adele K. (2)	18,068	Mary & Julia (2)	21,600
Andarte (1)	9,000	Monte Carlo (1)	4,000

## NEW YORK

Alvan T. Fuller (2)	79,600	Marion & Alice (2)	74,100
Buzz & Billy (3)	45,500	Nautilus (1)	67,000
Catherine C. (2)	45,800	Olivia Brown (2)	55,700
Clipper (3)	116,000	Our Lady of Fatima (1)	48,400
Edith L. Boudreau (3)	120,000	Positive (3)	169,400
Evelina M. Goulart (2)	102,000	Rainbow (1)	22,000
Felicia (1)	42,000	Richard Lance (2)	34,100
Gloria F. (2)	22,300	Ronald & Mary Jane (3)	149,200
John G. Murley (1)	32,500	Rosalie F. (3)	47,800
Joseph S. Mattos (3)	120,500	St. Rita (2)	26,500
Katie D. (1)	24,000	Santo Antonino (1)	11,000
Lady of Good Voyage (3)	107,000	Tina B. (3)	150,500
Florence B. (1)	9,800	Sally & Eileen (1)	5,175
Miriam A. (1)	7,065	S No. 31 (2)	13,275
Olive M. Williams (1)	6,075	Susan (2)	13,770
Rockaway Belle (2)	8,775	Whaling City (1)	4,275

## Scallop Landings (Lbs.)

Florence B. (1)	9,800	Sally & Eileen (1)	5,175
Miriam A. (1)	7,065	S No. 31 (2)	13,275
Olive M. Williams (1)	6,075	Susan (2)	13,770
Rockaway Belle (2)	8,775	Whaling City (1)	4,275

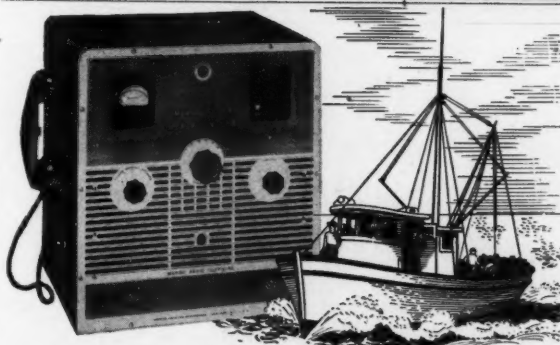


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Annie M. Jackson (4)	35,500	Maria-Julia (2)	10,500
Arnold (4)	23,800	Marie & Winifred (1)	6,900
Arthur L. (1)	6,500	Mary & Joan (3)	85,800
Austin W. (2)	13,900	Mary J. Hayes (2)	58,700
Barbara (4)	19,600	Mary Tapper (2)	22,500
Barbara M. (3)	19,800	Molly & Jane (1)	6,800
Capt. Deebold (1)	17,000	Nancy Lee (3)	10,200
Carl Henry (2)	50,700	Nautilus (1)	32,000
Chas. E. Beckman (3)	17,900	Noreen (2)	105,800
Christine & Dan (2)	15,000	Pauline H. (2)	58,700
Connie F. (1)	13,200	Phyllis J. (1)	4,700
Dauntless (5)	25,700	Roberta Ann (2)	22,300
Edith (1)	1,700	Rosemarie V. (2)	29,100
Elva & Estelle (1)	8,200	R. W. Griffin, Jr. (3)	47,800
Elva L. Beal (2)	6,500	St. Ann (3)	41,900
Eugene & Rose (4)	52,200	Santa Cruz (1)	3,500
Gannet (2)	75,000	Sea Hawk (1)	4,900
Gertrude D. (1)	16,000	Shannon (3)	21,500
Gladys & Mary (2)	82,300	Skillogolee (3)	37,300
Growler (3)	54,200	Solveig J. (2)	92,500
Harmony (2)	24,900	Southern Cross (3)	20,500
Hazel S. (1)	5,300	Southern Cross (Vnyd) (1)	5,600
Hope II (3)	29,900	Stanley B. Butler (3)	178,800
Huntington Sanford (3)	18,000	Sunbeam (2)	17,200
Invader (2)	31,300	Teresa & Jean (3)	83,000
Ivanhoe (4)	31,000	3 & 1 & 1 (3)	26,800
Jacintha (2)	51,700	Three Bells (2)	9,200
Joan & Ursula (4)	44,500	Three Pals (4)	44,600
John G. Murley (1)	14,500	Venture 1st (2)	18,700
Junojaes (3)	34,000	Victor Johnson (3)	36,500
Kelbarsam (1)	7,500	Viking (3)	80,700
Lera G. (1)	7,000	Virginia (2)	69,700
		Whaler (3)	66,500
		Winifred M. (2)	8,700

## Scallop Landings (Lbs.)

Abram H. (1)	7,200	Louis A. Thebaud (1)	3,000
Alpar (2)	13,500	Louise (1)	7,500
Amelia (2)	11,200	Lubenray (2)	11,000
Antonina (1)	2,700	Malene & Marie (2)	17,500
B & E (1)	5,400	Marmax (1)	2,500
Bobby & Harvey (2)	16,000	Mary Anne (2)	13,300
Brant (1)	9,000	Mary Canas (1)	5,000
Bright Star (2)	16,500	Mary E. D'Eon (1)	4,600
Camden (1)	7,500	Mary J. Landry (1)	4,200
Carol & Estelle (2)	14,700	Moonlight (2)	18,500
Carolyn & Priscilla (2)	5,700	Muskegon (1)	6,500
Catherine & Mary (3)	9,500	Nancy Jane (3)	20,825
Charles S. Ashley (1)	7,500	New Bedford (2)	18,200
Christina J. (2)	4,400	New Dawn (1)	1,500
Doris Gertrude (2)	14,700	Newfoundland (2)	19,800
Dorothy & Mary (2)	12,000	Palestine (1)	3,000
Eleanor & Elsie (1)	3,000	Pearl Harbor (1)	10,200
Elizabeth N. (2)	17,550	Pelican (1)	8,000
Ethel C. (2)	10,100	Porpoise (2)	16,800
Eunice-Lillian (2)	20,500	Red Start (2)	20,300
Fairhaven (2)	10,100	Ruth-Moses (2)	18,800
Falcon (1)	5,000	Sea Ranger (2)	21,375
Flamingo (3)	24,500	Smilyn (2)	13,000
Fleetwing (2)	18,700	The Friars (1)	1,300
Friendship (1)	5,500	Ursula M. Norton (1)	7,600
Gambler (2)	11,400	Vivian Fay (2)	25,000
Jerry & Jimmy (2)	22,000	Wamsutta (2)	6,400
Josephine & Mary (3)	24,925	Wm. D. Eldridge (1)	9,000
Kingfisher (2)	20,000	Wm. H. Killigrew (3)	23,300
Lauren Fay (1)	4,000		
Linus S. Eldridge (2)	23,125		

## New Book on Waves and Tides

A new book entitled "Waves and Tides" has been published by The Philosophical Library, Inc., 15 East 40th St., New York 16, N. Y., and may be obtained for \$6.00. Written by R. C. H. Russell, M.A., and Cdr. D. H. MacMillan, the book represents an effort to answer common questions about waves and tides in such a way as to be understood by the ordinary reader.

Questions often asked by those who spend the greater part of their lives on the sea include the following: How big are the biggest waves? How fast and how high are the biggest tides? Above all, what are the causes of waves and tides and to what extent do their causes interact? It is only with the modern development of the oceanographic sciences that serious attempts have been made to answer these questions.



## Canadian Report

By C. A. Dixon

### Fishermen's Union Formed

At a meeting held in St. Andrews, N. B., Arthur S. Mawhinney of Chance Harbor, Saint John County, was elected president of the newly-chartered Southern New Brunswick Fishermen's Association Federal Union No. 507. Other officers are: vice-president, Charles Barteau, Leonardville; recording secretary, Ald. T. L. Doherty, Lancaster; secretary-treasurer, Nelson Dick, L'Etete, N. B.

The aims of the fishermen's union are as follows: (1) To stabilize prices paid for the catch by the packers. (2) To arrive at some uniformity of working conditions. (3) To standardize fishing laws and regulations. (4) To act as a liaison between fishermen and buyers.

It was hoped that some 2,000 potential members along the southern coastline would be signed up by the end of March. Subsidiary charters will be issued to various component groups, upon the completion of the organization period.

A special Union meeting was held recently at St. John, where a large number of fishermen became members. These included weir owners and operators and others engaged in the catching of fish. It was announced at the meeting that the fishermen of Grand Manan Island in southern Charlotte are signing up rapidly.

Councillor James A. Whitebone, vice-president of the Trades and Labor Congress of Canada, was chairman of the Saint John meeting. One of the speakers was J. Harold Stafford, representative of the Congress in New Brunswick. The gathering also was addressed by Daniel Riley, M.P. for Saint John-Albert, N. B., who discussed the problems of the fishermen and gave information as to the action of the Federal Government in their behalf. A question and answer period was conducted, and problems relating to the Saint John Harbor fisheries were discussed. According to an old royal decree, anyone is permitted to fish in the harbor without a license.

### Purse Seiners Catching Young Pollock

The purse seiners, who have found sardines very scarce since the first strike at the beginning of the year, have turned their attention to the catching of young pollock in the Grand Manan area of southern New Brunswick. As many as 400 hogsheads of the small fish have been caught in a single seining day in the North Head area.

The supply has been too large for the requirements of the animal food factory at Lubec, Me., and boatloads of the pollock are being taken to the fish meal plant of Connors Bros., Ltd., Black's Harbor, N. B. The price being paid for the young pollock is reported to be \$7.00 a hogshead for fish meal purposes, and \$17.50 for animal food canning. Boatmen have been doing very well freighting the small pollock, some of which are partly matured.

However, concern is being felt over the removal from the sea of these larger fish. Hand-liners see in this mass catching a menace to hand-lining operations for large pollock. They fear that no pollock will be left to grow should such vast quantities be caught for any length of time.

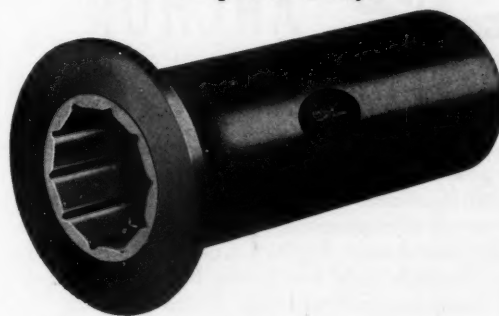
### Gale Causes Damage

A heavy gale from the south-southeast during the latter part of February did considerable damage along the shore of southern New Brunswick, smashing boats, wharves and buildings and destroying and damaging a large number of lobster traps stacked ashore after the Winter lobster fishing season ended the middle of January. Residents say it was the worst storm in 50 years in Charlotte County. Exceptionally high tides added to the onslaught of the waves.

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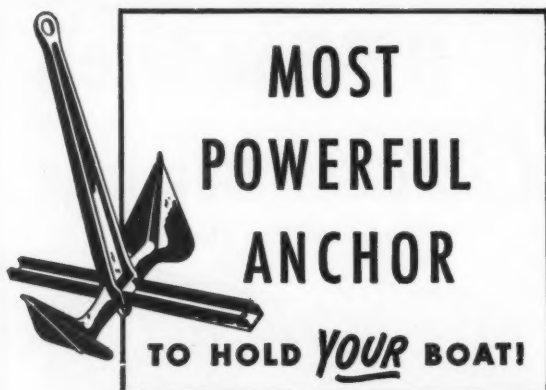
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## North Carolina Deep-Water Clam Survey Under Way

A survey which is expected to reveal whether or not commercial quantities of clams exist in the deep waters of Core Sound, around Cape Lookout and other areas off the Carteret Coast, began during February. The investigation, to cost between \$1,500 and \$2,500, was authorized by the Conservation and Development Board.

The survey was made necessary by the scarcity of clams in the shallow waters where local clambers usually operate. Unlike New Jersey and Maryland, where clams are harvested in deep water, local clambers operate in water only six to eight feet deep.

## Bill Proposes New Licenses and Taxes

Members of the North Carolina Fisheries Association are studying a bill proposed by Rep. Russell Swindell relating to fisheries license fees and tax laws. The new tax and license bill replaces that of the 1951 Legislature by which, in an error of omission, only the State tax on oysters has been in effect during the last two years. The principal objection which fisheries men have voiced is that the bill proposed is confusing in its multiple tax character.

The taxes under the proposed legislation are coon oysters, 4¢ per bushel; scallops, 5¢ per gallon; clams, 6¢ per bushel; soft crabs, 2¢ per dozen; hard crabs, 10¢ per barrel; shrimp (cooked or green), 15¢ per 100 pounds; and fish, 5¢ per 100 pounds. The fishermen are reported to object to the tax on fin fish, pointing out that no other State now taxes the taking of fish except South Carolina.

Fisheries representatives also are said to object to much of the licensing part of the bill, which covers both boats and fishing appliances. It is proposed that the license tax on fishing craft be set at \$1.50 per gross ton, with a \$5 minimum for small boats not documented in the customhouse.

The bill proposes to tax anchor, stake, drift and gill nets at \$1 for each 100 yards or fraction thereof; pound nets and submarine pound or submerged trap nets at \$2 for each trap or pound; fish pots or traps for catching catfish or eels at \$1 each; seines, dragnets, and mullet nets at \$1 per 100 yards or fraction thereof; fyke nets at \$1 each; and fish trawls, crab trawls, and shrimp trawls at \$5 each.

## Seek Local Ban on Long Net Fishing

A petition signed by many citizens of Hatteras Island was presented to the Board of Commissioners early in February urging that the Board seek the passage of legislation to prohibit long net fishing in the area inside the reef between Kings Point and New Inlet. These waters are adjacent to Hatteras Island, and the resident stake net fishermen depend on them for a living.

The petition sets forth that the long nets are especially destructive to small fish, and that the fishing of such nets in this area is taking a livelihood from many people who have no other place in which to fish.

## Would Outlaw Heavy Oyster Dredges

A bill designed to reduce damage to oyster beds by placing a 100-pound weight limit on oyster dredges was introduced in the North Carolina Legislature Feb. 4 by Rep. Russell Swindell of Hyde, chairman of the House Commercial Fisheries Committee, and Rep. T. J. Collier of Pamlico. There formerly was such a limit, Swindell explained, but the State Board of Conservation and Development raised it about a year ago to 160 lbs.

## Potter Heads Fisheries Association

Clyde R. Potter of Belhaven has been elected president of the newly-formed North Carolina Fisheries Association, which includes coastal fishermen, producer-dealers and wholesalers. Other officers elected were Earl H. Hol-

ton of Vandemere, vice-president; Garland Fulcher of Oriental, treasurer; and Roy Watson of Hobucken, secretary.

The constitution of the Fisheries Association sets it up on a twin base, by fishing sector and by type of fishery.

## Conservation Board Reorganization Bill Passed

The Senate and House have passed the Conservation and Development Board reorganization measure. Under the provisions of the bill, Governor Umstead will have the power on June 30, 1953, to appoint a completely new 15-member board.

## Need for Changing Oil

(Continued from page 19)

results in operation at high temperatures which are equally undesirable. In this type of design a closed cooling system is employed which is similar in operation to that of an automotive engine. However, instead of circulating the cooling water through a radiator which is cooled by the air stream, the marine system employs a heat exchanger which is cooled by sea water. The cooling water temperature is governed by a thermostat which regulates the amount of water flowing through the heat exchanger.

This type of engine design would result in favorable engine temperatures, provided the engines were installed and operated in a manner similar to an automotive engine. However, there are two features of marine engine installation and operation which can make this type of operation more severe from the standpoint of engine temperature when compared to automotive installations:

1. Marine engines operate about 90% of the time at constant speed and load. This means that maximum engine temperatures are quickly attained and maintained. When compared to automotive engines which are rarely operated for more than short periods at constant throttle and during which time the load is usually fluctuating due to the terrain, the marine engine attains much higher temperatures and maintains them for sustained periods of time.

2. Again comparing with automotive service, the marine engine is generally installed in a relatively small engine compartment which restricts free circulation of air around the engine, and does not have the equivalent of the automotive fan to enhance this circulation.

Because of the above factors it is possible for marine engines to operate at high oil temperatures even though the cooling water temperatures may be favorable.

### Deposits Formed by Oxidation

While it is true that most marine engine oils are fortified against oxidation, which is accelerated by heat, the additives used for this purpose cannot perform their functions indefinitely and when they cease to function as antioxidants, the oil should be changed in order to prevent the accumulation of harmful deposits in the engines.

Deposits formed by oxidation of the lubricating oil can cause piston ring sticking, rapid cylinder wall and bearing wear, all of which result in high oil consumption. High temperature deposits also may cause valve sticking or sluggish valve operation, which results in unsatisfactory engine operation.

The only way to prevent the harmful effects of either high or low temperature operation is by periodic changing of the crankcase oil—changing in high temperature service to insure that the additives are maintained at a sufficient level to prevent oil oxidation, and in low temperature service to remove the harmful contaminants.

Marine engine manufacturers are well aware of the necessity of periodic and regular oil changes for most satisfactory operation and life of the equipment they produce. All of them make specific recommendations for the proper oil change intervals based on engine design and installation. Reference to your operators' manual will reveal the proper drain interval for your marine engine.



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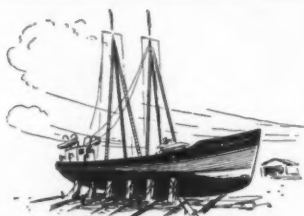
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FOOT OF QUAY STREET

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## Vineyard Bailings

By J. C. Allen

With March rising on the skyline, we fail to notice any change in things locally or cause to be overly enthusiastic or downcast. Barring some of the most stinking weather in years, there is little to report from the sea skimmers.

The variety of fish has run about the same as usual, the quantity no more and no less if allowance is made for weather. So why dwell on this angle? There are other more interesting things to consider.

We had the opportunity to see the English movie on the operation of the otter trawl, made by frog-men. We didn't miss a detail, and so help us, if every fisherman in the country could see it, it would be well worth while, seems to us.

The principal effect upon us was that we have had to revise a whole lot of our ideas about otter trawling and its probable influence on fishing in general. Our main conclusion, today, is this. First of all, be darned if we can understand how anybody ever catches any fish at all in the otter trawl. Secondly, as it seems to us, it can't be possible that they can pick up any large percentage of a body of fish unless the fish are piled up in a heap. Thirdly, this theory about big meshes to let small fish out ought to work very well indeed, but only if the net is correctly and carefully made and hung. Any little error anywhere will raise the devil with the plan.

And as for tearing up the bottom, well, it's just like this as it seems to us. If it is possible for a vessel or a number of 'em to tow over the same bottom long enough, yes, they can tear it up. But it would take years to do it, because so far as we could see only the boards do any damage at all.

### Movie Filmed on Smooth Bottom

Now we realize that the bottom, over which most of this film was made, was the smoothest and most favorable possible. They had to work it that way in order to show the twine and get light. 'Twas in twenty fathoms, at that, and we know the towing speed was two and a half miles an hour, which we doubt like hell would take scup or butters. A skate kept clear of the bottom line and never half exerted himself.

But the kelp and such-like vegetation over which the trawl was towed, showed no sign of injury except where the board plowed in soft bottom. In those views where the bottom was rocky, the boards heaved and lifted and rocked along, hitting only here and there while the net was lifted clean over large areas every few fathoms.

Naturally, this movie couldn't have pictured average conditions. Granted, it was not taken in a school of fish. We have made allowances for all this. But we would suppose that under average conditions, and taking the bottom as you find it, the trawl would not operate nearly as effectively as it did in the movie where they picked the ground.

And so we begin to wonder. Oh hell, we know that anything hoisted in the bag has the gizzard squeezed out of it. And we know all about slaughtering the small haddock and God knows what else. Let's face it. But after studying that movie for an hour we are convinced that there is something else somewhere that nobody has got on to as yet—something that has raised the devil with the bottom, somewhere; something that has disturbed the feed, plankton, and the like. And something besides the otter trawl has helped to some extent in thinning out the groundfish. That is just as sure as the devil.

### Supply Greater Than Imagined

When we recall the hauls made in the early days of otter trawling it seems to us that the supply of fish

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must have been far greater than anyone ever imagined. As a matter of fact, it seems to us that the same must still be true. We can see clearly that certain sections of bottom are probably torn all to the devil, but these areas must be limited in extent; it just can't be otherwise.

What we believe is that the otter trawl scares the devil out of the fish and drives them. The cloud of mud and all the rest must have some such effect. And having taken small fish and killed them, that spells the end of them. On top of that, changing water temperatures may affect vegetation, feed, and even the habits of the adult fish. It may affect 'em to such an extent that breeding is slowed down or epidemics brought about. We don't know.

All these things are possible, and the damage done by the nets is apparent enough, as far as it goes. But we cannot sit on our hind legs today, and out of the wisdom of our years swear by the Great Hookblock that the otter trawl alone is responsible for the decline of our fisheries. We have seen the evidence, and it doesn't tally.

## Georgia Area Oceanographic Survey Gets Under Way

A long-range effort to learn the scientific secrets of the Atlantic Ocean and to multiply its commercial harvest began February 10 when the specially-fitted 97' *Theodore M. Gill* sailed from Brunswick on a survey project jointly sponsored by the Federal Government and the States of Georgia and Florida.

The study project is headed by W. W. Anderson, fisheries biologist of the U. S. Fish and Wildlife Service, who describes the undertaking as a "biological, chemical and physical oceanographic survey." Anderson warns that the job will require many years of painstaking work afloat and ashore if it is to yield a really comprehensive report.

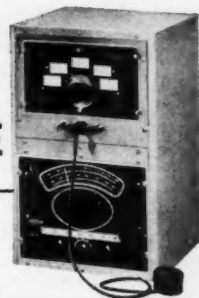
The voyage out along the Gulf Stream was to be only two weeks in length, but it will be the first of many planned to learn about the Atlantic Ocean from the coast of North Carolina to the Florida Straits. At the conclusion of the trip, the ship was to return to Brunswick, where samples of plant and animal life and of water were to be subjected to examination in a laboratory established there for the purpose.

Commercial fishermen are particularly interested in the project because none of them ever has been able to unlock more than a small fraction of the secrets of the sea that gives them their living. One of the primary, practical results of the study is expected to be a more comprehensive and intelligent system of conservation laws.

## Beasley Named to Fish Commission

Gov. Talmadge has named Fred D. Beasley, former legislator and shrimp industry leader of McIntosh County, to succeed J. R. Holland of Savannah as a member of the State Game and Fish Commission. Beasley was appointed to a seven-year term.

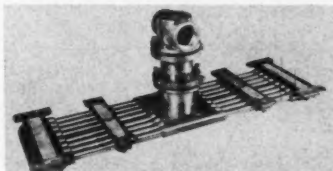
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# Where-to-Buy Directory

Companies whose names are starred (\*) have display advertisements in this issue; see Index to Advertisers for page numbers

## AIR STARTING MOTORS

Ingersoll-Rand, 11 Broadway, N. Y. 4, N. Y.

## ALARM SYSTEMS

Brown Alarm Mfg. Co., Inc., 1631 Filbert St., Baltimore 26, Md.

## ANCHORS

Danforth Anchors, 2121 Allston Way, Berkeley, Calif.

\*Northill Co., Inc., Los Angeles 45, Calif.

## BATTERIES—Storage

\*Bowers Battery & Spark Plug Co., Reading, Penn.

"Exide": Electric Storage Battery Co., 42 South 15th Street, Philadelphia 2, Pa.

\*Surrette Storage Battery Co., Salem, Mass.

## BLOCKS

Madeco Tackle Block Co., Easton, Pa.

## BOOTS

\*United States Rubber Co., Rockefeller Center, New York, N. Y.

## CANS

Continental Can Co., 100 E. 42nd St., New York, N. Y.

## CLOTHING

The H. M. Sawyer & Son Co., Cambridge, Mass.

A. J. Tower Co., 24 Simmons St., Boston, Mass.

\*United States Rubber Co., Rockefeller Center, New York, N. Y.

## CLUTCHES

Newton Clutch Mfg. Co., 1 Border St., W. Newton, Mass.

## COLD STORAGE

Quaker City Cold Storage Co., Philadelphia, Pa.

## COMPASSES

John E. Hand & Sons Co., 243 Chestnut St., Philadelphia 6, Pa.

\*Marine Compass Co., Pembroke, Mass.

E. S. Ritchie & Sons, Inc., 112 Cypress St., Brookline, Mass.

\*Sperry Gyroscope Co., Division of the Sperry Corp., Great Neck, N. Y.

\*Wilfrid O. White & Sons, Inc., 216 High St., Boston 10, Mass.

## CORDAGE

American Manufacturing Co., Noble and West Sts., Brooklyn, N. Y.

\*Columbian Rope Co., Auburn, N. Y.

The Edwin H. Fidler Co., Philadelphia 24, Pa.

\*New Bedford Cordage Co., 131 Court St., New Bedford, Mass.

Plymouth Cordage Co., Plymouth, Mass.

\*Tubbs Cordage Co., San Francisco, Calif.

## DECK PLATES

J. F. Hodgkins Co., Gardiner, Me.

## DEPTH FINDERS

Bendix Aviation Corp., Pacific Div., 475 Fifth Ave., New York 17, N. Y.

\*Kaar Engineering Co., Palo Alto, Calif.

\*Raytheon Manufacturing Co., 138 River St., Waltham 54, Mass.

\*Wilfrid O. White & Sons, Inc., 216 High St., Boston 10, Mass.

## DIRECTION FINDERS

Applied Electronics Co., 1246 Folsom St., San Francisco 3, Calif.

Bludworth Marine, 92 Gold St., N. Y. 7, N. Y.

\*Kaar Engineering Co., Palo Alto, Calif.

\*Raytheon Manufacturing Co., 138 River St., Waltham 54, Mass.

## ELECTRICAL CONVERTERS

LaMarche Mfg. Co., Wakefield 8, R. 1.

## ENGINES—Diesel

\*Atlantic Equipment Co., Inc., 58 McDonald St., Readville 37, Mass.

The Buda Co., Harvey, Ill.

\*Burmeister & Wain American Corp., 17 Battery Place, New York 4, N. Y.

Caterpillar Tractor Co., Peoria, Ill.

\*Cooper-Bessemer Corp., Mount Vernon, O. Cummins Engine Co., Columbus, Ind.

Detroit Diesel Engine Division, General Motors Corp., Series 71 Marine Diesel, 13400 W. Outer Drive, Detroit 23, Michigan.

\*Enterprise Engine & Machinery Co., 18th and Florida Sts., San Francisco 10, Calif.

Fairbanks, Morse & Co., Chicago, Ill.

Gray Marine Motor Co., 646 Canton Ave., Detroit, Mich.

\*Hallett Mfg. Co., 1601 West Florence Ave., Inglewood, Calif.

\*P&H Diesel Engine Division, Harnischfeger Corp., 100 Lake St., Port Washington, Wis.

Kermath Manufacturing Co., 5890 Commonwealth Ave., Detroit 8, Mich.

\*The Lathrop Engine Co., Mystic, Conn.

Walter H. Moreton Corp., 9 Commercial Ave., Cambridge 41, Mass.

Murphy Diesel Co., 5317 West Burnham St., Milwaukee, Wis.

\*The National Supply Co., Engine Division, Springfield, Ohio.

\*Nordberg Mfg. Co., Lincoln Bldg., 60 East 42nd St., New York 17, N. Y.

The Palmer Bros. Engine Corp., River Road, Cos Cob, Conn.

H. O. Penn Machinery Co., Inc., East River and 140th St., New York, N. Y.

\*Perkins-Milton Co., 376 Dorchester Ave., South Boston 27, Mass.

Red Wing Motor Co., Red Wing, Minn.

Scripps Motor Co., 5817 Lincoln Ave., Detroit 8, Mich.

Wolverine Motor Works Inc., 1 Union Ave., Bridgeport, Conn.

## ENGINES—Gasoline

\*Chris-Craft, Marine Engine Div., Algonac, Mich.

\*Chrysler Corp., 12211 East Jefferson, Detroit, Mich.

Gray Marine Motor Co., 646 Canton Ave., Detroit, Mich.

Kermath Manufacturing Co., 5890 Commonwealth Ave., Detroit 8, Mich.

\*The Lathrop Engine Co., Mystic, Conn.

\*Nordberg Mfg. Co., Lincoln Bldg., 60 East 42nd St., New York 17, N. Y.

The Palmer Bros. Engine Corp., River Road, Cos Cob, Conn.

Red Wing Motor Co., Red Wing, Minn.

Scripps Motor Co., 5817 Lincoln Ave., Detroit 8, Mich.

Universal Motor Co., 436 Universal Drive, Oshkosh, Wis.

## ENGINES—Outboard

Evinrude Motors, 4760 N. 27 St., Milwaukee, 16, Wis.

\*Johnson Motors, 6300 Pershing Rd., Waukegan, Ill.

## FILTERS

Fleck Engineering Co., Inc., 1631 Filbert St., Baltimore 26, Md.

\*Winslow Engineering Co., 4069 Hollis St., Oakland 8, Calif.

## FISHING GEAR

F. J. O'Hara Trawling Co., 211 Northern Ave., Boston 10, Mass.

\*Westerbeke Fishing Gear Co., Inc., 279 Northern Ave., Boston, Mass.

## FISH MEAL MACHINERY

Enterprise Engine & Machinery Co., Process Machinery Div., 18th & Florida Sts., San Francisco 10, Calif.

\*Standard Steel Corp., 5008 Boyle Ave., Los Angeles 58, Calif.

## FLOATS

W. E. "Bill" Francis Associates, P. O. Box 1556, Portland, Me.

J. H. Shepherd Son & Co., 1820 East Ave., Elyria, Ohio.

## GENERATING SETS

\*Atlantic Equipment Co., Inc., 58 McDonald St., Readville 37, Mass.

Detroit Diesel Engine Division, General Motors Corp., Series 71 Marine Diesel, 13400 W. Outer Drive, Detroit 23, Michigan.

\*Hallett Mfg. Co., 1601 West Florence Ave., Inglewood, Calif.

Nap. J. Hudon, 40 Fish Pier, Boston, Mass.

## GENERATORS

D. W. Onan & Sons, Inc., University Ave., S.E., Minneapolis 14, Minn.

The Safety Car Heating & Lighting Co., Inc., Marine Div., P.O. Box 904, New Haven 4, Conn.

## HOOBS

O. Mustad & Son, Oslo, Norway.

\*"Pfueger": Enterprise Mfg. Co., 110 Union St., Akron, Ohio.

## LORAN

\*Radiomarine Corp. of America, 75 Varick St., New York 13, N. Y.

\*Sperry Gyroscope Co., Division of the Sperry Corp., Great Neck, N. Y.

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The Safety Car Heating & Lighting Co., Inc., Marine Div., P.O. Box 904, New Haven 4, Conn.

## NETS

\*W. A. Augur, Inc., 35 Fulton St., New York. The Carron Net Co., 1623 Seventeenth St., Two Rivers, Wis.

\*R. J. Ederer Co., 540 Orleans St., Chicago, Ill.

The Fish Net & Twine Company, 310-312 Bergen Ave., Jersey City, N. J.

\*The Heminway & Bartlett Mfg. Co., 500 Fifth Ave., New York 36, N. Y.

The Linen Thread Co., Inc., 105 Maplewood Ave., Gloucester, Mass.

\*Moodus Net & Twine, Inc., Moodus, Conn. Joseph F. Shea, Inc., East Haddam, Conn.

A. M. Starr Net Co., East Hampton, Conn.

Sterling Net & Twine Co., Inc., 164 Belmont Ave., Belleville, N. J.

## OIL—Lubricating

Esso Standard Oil Co., 15 West 51st St., New York 19, N. Y.

\*Gulf Oil Corp., Gulf Bldg., Pittsburgh, Pa. Socony-Vacuum Oil Co., Inc., Marine Sales Dept., 26 Broadway, New York 4, N. Y.

## PAINTS

Henderson & Johnson, Inc., Gloucester, Mass. \*International Paint Co., Inc., 21 West St., New York, N. Y.

\*George Kirby Jr. Paint Co., 14 Wall St., New Bedford, Mass.

Pettit Paint Co., Belleville, N. J.

\*Pittsburgh Plate Glass Co., Pittsburgh, Pa. \*C. A. Woolsey Paint & Color Co., Inc., 229 East 42nd St., New York 17, N. Y.

## POWER TAKE-OFFS

Albina Engine & Machine Wks., 2100 N. Albina Ave., Portland, Ore.

## PROPELLERS

\*Columbian Bronze Corp., Freeport, N. Y. Federal Propellers, Grand Rapids, Mich.

\*Hyde Windlass Co., Bath, Me.

\*Michigan Wheel Co., Grand Rapids, Mich.

## PROPELLER SHAFTS

The International Nickel Co., Inc., 67 Wall St., New York 5, N. Y.



## PUMPS

The Edson Corp., 141 Front St., New Bedford, Mass.  
Jabco Pump Co., 2031 N. Lincoln St., Burbank, Calif.

## RADAR

\*Radiomarine Corp. of America, 75 Varick St., New York 13, N. Y.  
\*Raytheon Mfg. Co., 138 River St., Waltham 54, Mass.

## RADIO TELEPHONES

Applied Electronics Co., 1246 Folsom St., San Francisco 3, Calif.  
\*Hudson American Corp., 25 West 43rd St., New York 18, N. Y.  
\*Kaar Engineering Co., Palo Alto, Calif.  
\*Radiomarine Corp. of America, 75 Varick St., New York 13, N. Y.  
\*Raytheon Mfg. Co., 138 River St., Waltham 54, Mass.

## RANGES—Galleys

\*Shipmate: The Stamford Foundry Co., Stamford, Conn.

## REDUCTION GEARS

Auto Engine Works, Inc., 333 A. North Hamline Ave., St. Paul, Minn.  
\*Snow-Nabstedt Gear Corp., Welton St., Hamden, Conn.  
Twin Disc Clutch Co., 1341 Racine St., Racine, Wis.  
\*G. Walter Machine Co., 84 Cambridge Ave., Jersey City 7, N. J.

## RUST PREVENTIVE

\*Sudbury Laboratory, Box 780, South Sudbury, Mass.

## SEAM COMPOUNDS

Marine Products, Inc., 82 High St., Oshkosh, Wis.

## SHIPBUILDERS

Bristol Yacht Bldg. Co., So. Bristol, Me.  
Diesel Engine Sales Co., Inc., St. Augustine, Fla.  
\*Liberty Dry Dock, Inc., Foot of Quay St., Brooklyn 22, N. Y.  
Newbert & Wallace, Thomaston, Me.  
\*Frank L. Sample & Son, Inc., Boothbay Harbor, Me.  
\*Story Marine Railway, So. Portland, Me.  
Webber's Cove Boat Yard, Inc., East Blue Hill, Me.  
West Haven Shipyard, 3 Water St., West Haven, Conn.

## SILENCERS

John T. Love Welding Co., 31 Wharf St., Gloucester, Mass.

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\*Sperry Gyroscope Co., Division of the Sperry Corp., Great Neck, N. Y.

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\*"Goodrich Cutless": Lucian Q. Moffitt, Inc., Akron 8, Ohio.  
Hathaway Machinery Co., Inc., New Bedford, Mass.

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The Safety Car Heating & Lighting Co., Inc., Marine Div., P.O. Box 904, New Haven 4, Conn.

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Bodine & Dill (formerly Hettinger Engine Co.), Bridgeton, N. J.  
Hathaway Machinery Co., Inc., New Bedford, Mass.  
Stroudsburg Engine Works, 62 North 3rd St., Stroudsburg, Penn.

## WIRE ROPE

American Steel & Wire Division, United States Steel Co., Rockefeller Bldg., 614 Superior Ave., Cleveland 13, Ohio  
Bethlehem Steel Co., Bethlehem, Pa.  
John A. Roebing's Sons Co., Trenton 2, N. J.  
\*Wickwire Spencer Steel Division of The Colorado Fuel & Iron Corp., Palmer, Mass.

## Oysters Take on Weight During Winter Months

Oysters put on weight even when they show little or no shell growth. This opinion has been verified by Dr. Jay D. Andrews, who has conducted weighings at the Virginia Fisheries Laboratory at Gloucester Point.

Dr. Andrews and Dr. Willis G. Hewatt have been growing oysters in trays at the Virginia Fisheries Laboratory pier for several years. Last Spring they marked 80 oysters for individual weighing. Fifty of these have survived, and are still being watched. Each oyster is carefully cleaned, and then is weighed under water. Increase in weight is more or less regular from mid-April until December. During the cold months, there is some growth, but at a much slower rate.

"Oysters make their fastest shell growth during the Spring and again during the Fall," states Dr. Andrews, "but between these periods of rapid shell growth, the oysters are becoming thicker and heavier."

Dr. Andrews does not think that the amount of new shell laid down is a completely reliable index of the growth of the oyster. Although new shell indicates that the oyster has great "expectations" for further growth, something may happen so that it fails to fill out the new bill.

## Value of Tidal Fresh Waters to Fisheries

William H. Massmann of the Virginia Fisheries Laboratory at Gloucester Point recently reported that 35% of the fin-fish are either taken in, or are dependent on, 4% of the area fished commercially by Virginians. This small but important area includes the tidal fresh waters extending upriver to the fall line from Jamestown on the James, West Point on the York and Tappahannock on the Rappahannock.

The average income from fishes taken in this region, and for fishes taken elsewhere but dependent on tidal fresh water for their reproduction, has been calculated by Mr. Massmann. For the five-year period from 1944 to 1948, \$215,588 was paid for fresh-water fish. The value of the salt-water fishes dependent on tidal fresh water was \$3,263,313 annually.

Although the water in the region mentioned above is "fresh", it has a tidal flow similar to the lower parts of the rivers. Furthermore, it is a meeting ground for the truly fresh-water fish and the salt-water varieties.

Fresh-water species commonly found there are catfish, carp, gizzard shad, yellow perch, and suckers. The salt-water fish include shad, striped bass, river herring, white perch and sturgeon.

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Rates: \$1.00 per line, \$5.00 minimum charge. Count 9 words to a line. Closing date, 25th of month. Atlantic Fisherman, Goffstown, N. H.

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Boat *Little Sam*, 71 ft., new Cummins engine, 188 hp., all new equipment ready for fishing, at a reasonable price. Call Boston, Mass. Capiotol 7-2743.

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Dragger *Mary B*, 32'4" x 11'1" x 4 1/2', Diesel power, 25-watt Hallicrafters radiotelephone, Hathaway winch, 8 nets, 2 sets of drag boards, baskets, pen boards, and spares, ready to fish. Capt. Ralph Minucci, 50 Sherman St., New London, Conn. Tel. New London 2-3780.

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4 cyl., 120 hp. at 400 rpm., can be seen running at Bellmore, Long Island. For further details contact Stanley Stevens, Bellmore Ave., Bellmore, New York.

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Brand new two stroke cycle BF 120 hp. Kahlenberg oil engine, includes extra equipment, spare parts and tools. This engine lists \$12,758.00. Make us an offer. J. T. Calnon, Box 687, Fort Worth, Texas.

### DRAGGER FOR SALE

Dragger in excellent condition, 40' x 12' x 4 1/2', 165 hp. G.M. Diesel, 2:1 reduction, fully equipped. Will sacrifice. For further information contact Auguste Matz, 2965 East 196th St., New York 61, N. Y. Tel.: Talmadge 3-2278.

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Caterpillar Model 77 1946 with 2:1 reduction gear. Good running condition. Replacing with more power. No reasonable offer refused. Ed. Welles, R.F.D. #2, Mystic, Conn.

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40' by 12 1/2', 6' draft; 225 hp. Gray Marine Diesel, ship-to-shore telephone and radio. Fully equipped for sea scalloping and quahogs. Launched in 1946. Owner is retiring. Write Box 49, Atlantic Fisherman, Goffstown, N. H.

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300 hp. Atlas engine. Apply Producers Fish Company, Gloucester, Mass. Tel. 1065.

### DRAGGER FOR SALE

Dragger 68', G.M. Diesel, 3.5 red. gear, Bendix DR-7, S. S. radio, spare engine parts, 2 sets trawling doors, nets, etc. 1000 gal. fuel capacity, excellent condition, invite careful inspection. Will sell under \$10,000. Must see to appreciate value. Write G. Obschleger, 7108 Bustleton Ave., Philadelphia, Pa. Tel. Devonshire 2-3513.

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Lester & Toner, Inc., Fulton Fish Market  
South Fish Co., 31 Fulton Fish Market  
Frank W. Wilkisson, Inc., 16 Fulton Market

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One pair Superior Diesels, 110 hp. at 1200 rpm., R.A.L.A. 1 1/4 reduction, turn 30 x 30 propeller. Good condition. Price \$3000 for pair. Herbert J. Cavaca, 3581 Main Road, Tiverton, R. I. Tel. Tiverton, R. I. 277-M-2.

### BOATS FOR SALE

Six small Diesel powered draggers: one 38' Western type, 4-cyl. G.M., 2:1 red.; one 40' Western type, 6-cyl. G.M., 1 1/2:1 red.; one 40' Western type, 6-cyl. Mack Diesel, 3:1 red.; one 45' Eastern type, 60 hp. Atlas; one 45' Eastern type, 6-cyl. Superior, 3:1 red.; one 47' Western type, 6-cyl. G.M., 2:1 red.

All boats equipped with radio and fishing gear, ready for use. May be seen at Woods Hole, Mass. Priced \$4500-\$7500. Other draggers, and large trawlers over 100'. "A good boat to suit your requirements." Edwin B. Athearn, Marine Broker, Commercial and Pleasure Craft, Falmouth, Mass. Tel. 2074.

### CABIN CRUISER FOR SALE

26' cabin cruiser, 10' beam, 4 cyl., 40 hp. Gray Marine motor. Complete, 2 bunks, stove and lavatory. This beautiful boat is in perfect condition and will be sold reasonable. A. Kelly, 62 Commercial Wharf, Boston, Mass. Tel. LA-3-5377.

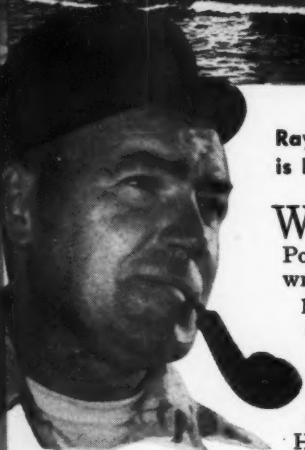
## WESTERBEKE FISHING GEAR CO., INC.

*Grimsby Trawls  
Wesco Cod-end Protectors  
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Also store and warehouse Gloucester, Mass.

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# 130 YEARS OLD...



Ray Gladding of Bristol, Rhode Island, owner of *Saltesea*. Built in 1822, *Saltesea* is believed to be oldest recorded vessel in active service in United States.

WERE he here today, a Poughkeepsie, New York shipwright would be extremely proud of *Saltesea*. Rightfully so, because *Saltesea* is the sailing schooner that he built back in 1822, which was christened the *Morgan* and first sailed out of New Haven, Connecticut. Today . . . 130 years later . . . she

still leads a busy, useful life in and around Bristol, Rhode Island.

Her owner and skipper, Ray Gladding of Bristol, operates the sixty-four foot vessel as an oyster boat and freight carrier. Says Skipper Gladding, "When I acquired *Saltesea* seven years ago, she was powered by a 250

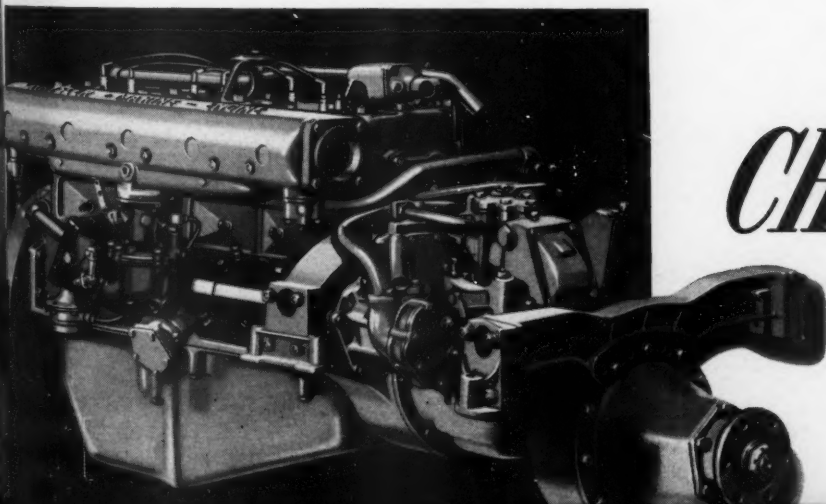
horsepower diesel, having previously been steam-driven. In 1949, I took out the diesel and put in a 115 horsepower Chrysler Crown Engine. I believe this is the first time an engine of this size has been put into a boat this large. Today, after more than 5000 sea-hours on the Chrysler Crown, it continues to meet *Saltesea's* year-round schedule and, while doing it, gives top performance with a minimum of service. That's why I'm sold on Chrysler."

Year after year, *Saltesea* continues to add useful years to her proud record . . . another fine example of why Chrysler Marine Engines are the first choice of boat owners all over America.

Whether you boat for pleasure or profit, there's a high-powered Chrysler Marine Engine for you. See your Chrysler Marine Dealer or write: **Department 92, Marine Engine Division, Chrysler Corporation, Trenton, Michigan.**

## CHRYSLER

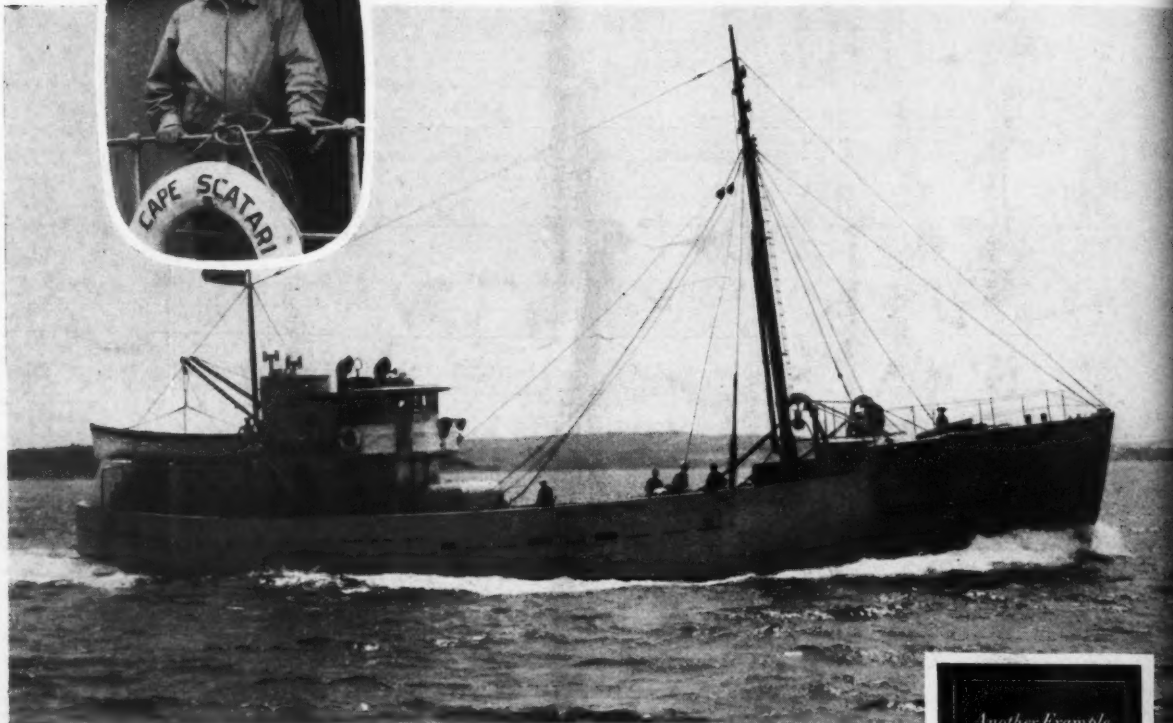
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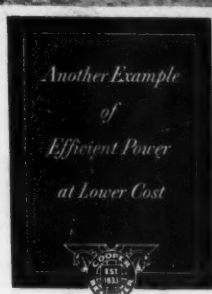


Captain Perry Conrad, skipper of the "Cape Scatarie", one of Canada's most modern fishing trawlers.



Cooper-Bessemer-powered "Cape Scatarie", designed by John G. Allen Company, was built for the National Sea Products Company of Halifax by Smith and Rhuland Shipyards.

## Experience is the best salesman of **Cooper-Bessemer Engines!**



National Sea Products of Halifax, influenced by the exceptional performance of their other Cooper-Bessemer-powered fishing trawlers, chose another Cooper-Bessemer diesel to power their newest trawler the "Cape Scatarie".

Supercharged and direct reversing, this 600 hp, 325 rpm JS6T drives the 115-foot "Cape Scatarie" up to 11.5 knots on her 7- to 10-day trips dragging for groundfish.

The "Cape Scatarie's" diesel is just one of thousands of Cooper-Bessemers doing a real job in the industry. Time after time experienced users install Cooper-Bessemer diesels in their new and repowered boats. And it will pay you to check with Cooper-Bessemer on your power needs!

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